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The Journal of the Society, published quarterly by Messrs. Macmillan and Co., Ltd., London, and sent post free to Fellows, is intended to represent the various shades of economic opinion, and to be the organ, not of one school of economists, but of all. The Journal numbers among its contributors the leading economists of all countries. Fellows are entitled in addition to the Journal, to copies of sundry other publications issued by the Society from time to time.

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ROYAL ECONOMIC SOCIETY

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MARCH, 1924

THE POST-WAR WAGES PROBLEM[1]

I

BEFORE the war the economic changes to which wages had to be adjusted were gradual. Rates of wages, therefore, had a high degree of stability, and the relations between wages in allied or neighbouring occupations were equally stable. Wages, it may fairly be said, constituted a system, since there were well-understood rates for most occupations; the relations between these were stable and generally accepted, and a change in any one rate would prompt demands for a change in other rates. It was this systematic character of wages that made wage changes so simple a problem compared with to-day's task. The abstract and unanswerable general problem, What is a fair wage? never came up; the problem was always the problem of a particular rate for a particular job. This was argued by reference to the normal relation between the rate for that job and other rates, and to relevant economic changes that might justify a departure from that normal relation. A change in the value of money might make necessary a whole series of changes in rates of money wages, in order to restore the previous relation between different trades, or between wages and profits; but the problem was limited to modifying an established system of rates, so as to keep it in harmony with the economic facts on which wages ultimately rest. This modification itself was done largely by collective bargaining, *for* the individual employer or wage-earner, not *by* him; the ordinary employer had to work to conditions of employment which were set for him. Hence the wage system lent some of its own stability to prices, which, even more than wages, have got out of step since the war.

The effect of the war was to dislocate this system and destroy

[1] Paper read before Section F of the British Association at Liverpool, September, 1923.

its stability, with the result that we have been forced to face the problem of wages as a whole, and to consider absolute levels of wages in place of merely making adjustments. This result has been brought about in three ways: the war substituted sudden and extensive changes for the gradual changes to which we were accustomed before; it interrupted the process of continuous adjustment of wages to changed commercial conditions; and it introduced modifications, that brought wages into closer correspondence with war-time economic needs, but caused them to diverge from normal commercial needs.

The rise in the cost of living, the profits of munition makers, the early losses and subsequent profits of other manufacturers, dilution, the creation of new industrial districts, the Government control of railways and coal—all involved either the need or the opportunity for extensive changes in wages, which the existing machinery of collective bargaining was too cumbrous to cope with. The orderly modification of wages to suit changes in the supply of different kinds of labour and changes in the demand for different kinds of work necessarily stopped, because the normal commercial basis of employment was lost. Instead, we had an attempt on the part of the Government to limit wage changes to bare cost of living advances, and to rely on other, authoritative, methods to direct labour to the changed purposes to which the war had given rise.

Government control of wages, however, was successful only in lessening the force of the pull that the war enabled favoured classes of workers to exert; it did not neutralise it. Hence there were important modifications in wages, justified by the needs of industry in war-time, but bearing no necessary relation to peace-time commercial conditions. Unskilled labour, male and female, being for the first time insufficient to meet demand, was able to improve its relative position; the Committee on Production's policy of awarding flat-rate advances to meet the increased cost of living was a recognition, probably unconscious, of the improved bargaining position of the labourer. Control lost much of its effectiveness, because it was not imposed at the outbreak of war; by the time it was imposed systematically, considerable divergences had already taken place in the advances secured by different classes of workers. And in some directions control accentuated rather than prevented divergence from peace-time ratios. The encouragement of systems of payment by results, before sufficient experience was available to set piece-rates and bonus-times that would yield without wide variation earnings of

the intended amount, led to wide divergences of wages, and created the so-called "skilled man's grievance," which the $12\frac{1}{2}$ per cent. bonus of 1917 was intended to remove. The pledge to pay dilutees the same rates as the skilled men whose place they took for the same work involved disturbance in normal relations. The practice of adjusting wages by national awards, coupled with the reservation of the right to bring up the case of exceptionally low-rated districts, led to a levelling up of wages in each occupation. So far as the local differences thus swept away were due to permanent economic differences, the effect of this levelling up was to force wages out of correspondence with normal commercial conditions. And these war-time innovations lasted just long enough to encourage the workers who had gained by them to hope that they would be permanent, but not long enough to extinguish the recollection, and therefore the influence, of the pre-war ratios that they superseded.

In this dislocation of the pre-war relations between the wages of different classes of work-people is to be found the explanation of a large part of the discontent that has led to strikes and lock-outs since the war. If workers before the war had insisted on questioning every rate, on accepting none that could be neither justified by an acceptable ethical argument nor enforced by a lock-out, we should not have enjoyed the (relative) industrial peace that we did. In fact, as we saw, the problem of wage-fixing was limited to adjusting particular rates to particular economic changes, always with reference to a system of rates that was generally accepted. Since the war this necessary basis has been missing. Few workers could not point to someone whose relative position had improved more than their own, so that any improvement they had secured left them unsatisfied. The habit of comparison with allied and neighbouring classes, which before the war acted as a restraining force, preventing a group from exploiting to the full any temporary bargaining advantage it possessed, now operated in the opposite direction, exciting further demands. The influence of the pre-war system of relations was still operative, since it led workers who had not maintained their position in the scale to expect and demand compensating advances; but it did not operate as an effective argument for a reduction where workers had improved their relative position.

Employers were equally without guidance as to what they could concede, since commercial conditions were so hard to judge. They resisted demands for increases in wages on the ground that

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trade could not stand them; rightly enough if they were taking a long view, but without much immediate justification if their profits in 1919 and 1920 are any indication of what trade could stand. The close and continuous contact between trade union officials and employers, which normally enables them to gauge pretty accurately how far they can go without provoking a rupture, had been interrupted by the period of Government control of wages. Both sides, therefore, were almost compelled to question every rate; a stoppage was often the only means of ascertaining what rate the trade would bear. We were, for the time being, faced with the question, What is a fair wage? and compelled to consider, by such machinery as the Sankey Commission and the Shaw Court of Enquiry, what the absolute level of wages in essential industries ought to be. The problem of wages as a whole came up on every particular wage dispute.

There is not much prospect of a return even to the qualified peace that characterised industrial relations before the war, until something like the pre-war stability of wages is restored. This involves two things: the rates must be adjusted to the normal commercial needs and possibilities of each industry, and the relations between them must be such as the workers accept as reasonable. At present the worker's mind is still influenced by the system of pre-war relations; progress towards adjusting wages to a commercial basis outrages his sense of equity wherever that adjustment has meant a reduction in the scale. Hence there is no finality about these adjustments, and they will be challenged so soon as the unions feel strong enough to challenge them. Employers as well as workers are dominated by these pre-war notions, and complain that workers in other trades have not made the sacrifices that their own have made to reduce costs and revive industry. Yet it is on the face of it in the last degree unlikely that the system of rates that represented a fair adjustment to commercial needs before the war will have the same validity in the changed post-war world. The need is not to restore the pre-war system, but to secure a post-war system with the same stability as the pre-war system. To do this, the chief need is to get clear the changes, permanently affecting wages, that the war has brought about. The war interrupted the process of continuous adjustment to economic changes in the wage system and accelerated economic change; there was, therefore, at the end of the war an accumulation of changes to which wages had to be adjusted, and there can be no stability in wages until these changes are recognised, adjustments made

where they are necessary, and, a matter of equal importance, the necessity of modifications recognised where these have already been made.

II

Obviously it would require the resources of a Government department or a Royal Commission to survey the changes adequately. I can hope only to indicate the chief among them, without much detail. They can, I think, be conveniently brought under four heads: occupational distribution, organisation, markets, and nature of work.

Perhaps the most important effect of the war for the post-war generation is the change it brought about in the distribution of population among occupations. The war gave an abnormal stimulus to certain industries, the exigencies of war starved other industries of their normal development. And the war lasted long enough—about the duration of an ordinary apprenticeship—to make these influences effective. The following table brings together the chief changes in the occupational distribution of which we have information:

Great Britain: all persons.

	June 1914.	Jan. 1922.	Inc. or Decr.
Building and Construction .	908,000	870,000	− 38,000
Engineering and Ironfounding	790,000	1,127,000	+ 337,000
Shipbuilding	242,000	316,000	+ 74,000
Railways (United Kingdom)	639,000	763,000	+ 124,000
	(Dec. 1913)	(Mar. 1921)	
Coal-mining	1,134,000	1,180,000	+ 46,000

Even more striking is a comparison made by Professor Bowley [1] between the shift of population into certain industries and the increase in the population.

Great Britain and Ireland.

	1911.	1921.	Inc
Male population, aged 15-65 .	12,536,000	13,316,000 (estimated)	780,000
Males over 16 in Engineering, Shipbuilding, Vehicles, Iron & Steel, and Metal Industries	1,600,000	2,175,000 (Jan. 1922)	575,000

It is clear that the war diverted a large part of the labour of the country from the occupations into which the normal needs

[1] *The Third Winter of Unemployment*, J. J. Astor and others, chap. ii.

of commerce would have drawn it into the industries required by the war. The influence of this diversion is the greater since in certain directions it accentuated pre-war tendencies that were already operating to depress wages in certain occupations and raise them in others.[1]

The effects of this occupational redistribution could be traced further if we had the results of the 1921 Census. In printing, for example, wages have risen relatively; this rise has coincided in the areas for which we have the Census returns with a decline in the number of compositors.

An increase in numbers is not always accompanied by a relative fall in wages. In the case of the railway workers numbers have increased, and yet wages are relatively higher. This may illustrate the influence of the second set of changes—changes in organisation. It will be generally admitted that wage-rates are much influenced by trade union organisation and other methods of collective bargaining. An organised trade is likely to secure a higher rate than an unorganised one would in circumstances otherwise similar; standard rates will have a wider authority and be more uniformly observed where the organisation extends over the whole of a trade and is not confined to a few favoured districts. Organisation is a condition of obtaining the highest wage that the trade at any moment will bear, and it is a means by which one trade secures better terms than other trades in the competition of all trades for the joint product of all.

The war and the post-war boom affected the relative strength of different organised groups in several ways. In the first place it gave certain trades, which had recently extended and improved their organisation, an opportunity of exploiting their new powers more favourable than they could otherwise have hoped for.

[1] The movement into certain industries before the war was as follows:

United Kingdom: Males aged 10 years and upwards occupied.

	1891.	1901.	% increase.	1911.	% increase or decrease.
Coal and Shale Mines . . .	596,000	749,000	26	1,016,000	35½
Metals, Machines, Implements and Conveyances .	1,098,000	1,410,000	27½	1,672,000	18½
Ships and Boats . only	97,000	127,000	31	163,000	28
Building and Construction . .	953,000	1,333,000	40	1,208,000	−9
All occupied Males	11,463,000	12,951,000	13	14,308,000	14¾

The railwaymen and the miners were the most important groups under this head. In both cases the trade-union organisation on the eve of the war had recently made itself national in its scope, and had defined a national programme, directed to securing improved rates and conditions and some approach to uniformity throughout the country. The Government control of the railways and the mines, with its pooling of the receipts of hitherto independent concerns, made this greater uniformity possible. Probably Government control also made it easier to raise wages; marginal firms no longer held down rates, political pressure could be added to economic pressure, the Government dare not, when irresponsible private employers would have dared. face a strike in an essential industry. It is significant that the Cabinet dare not even subject the mining industry to the jurisdiction of the Committee on Production, although the basis of its policy of wage control was to use the Committee on Production as the final unifying authority on wages. While, however, miners and railwaymen both gained from Government control during the war, the gains they were able to retain were very different. In the case of the miners, unification of the industry, which was essential if anything like uniform standards and conditions of labour were to be established, and which Government control involved, has been swept away. Forced to accept wages based on the commercial results of the industry organised once more on its pre-war basis, the miners have found the industry's profits and their wages reduced by the slump, for which the Government's mismanagement of the industry's markets was at any rate partly responsible, and have retained of their gains only the shorter working day and a wider district basis for wages. The railwaymen have retained relatively more; a re-classification of grades that meant a general levelling up of wages, a wage agreement that ensures a considerable advance on pre-war real wages, and a shorter working day, representing a much greater increase in labour cost, since it is not possible in railway working, as in mining, to increase production to a point at which the rate of output compensates for the reduction in hours. The reason of the difference is no doubt partly that mining is directly, and the railway industry only indirectly, dependent on export markets; but mainly that the unification of the railway industry effected during the war has not been allowed to lapse, the four groups under the Railways Act, with their statutory right to profits on the pre-war scale, constituting as effective a monopoly, from the point of view of the worker who is organised to share monopoly

gains, as the Government control. The mining industry has got rid of the new labour that poured in during the war, the demand for its products continues to grow; it may be expected, therefore, when trade improves, to resume the advance in wages and conditions that the war first accelerated and then checked. The railwaymen have probably achieved a permanent improvement in their position, even if they do not retain all their war-gains.

A second change in the organisation of labour, due to the war and likely to effect wages permanently, is the greatly improved organisation of general, so-called unskilled and semi-skilled, labour. For a number of reasons the war gave an enormous stimulus and support to the efforts of the general labour unions to extend their organisation. The depression of the last two years has caused a large falling off in membership; but the improved union framework survives, the membership is much greater than ever before the war, and the novel experience of union membership persists as a memory among millions of hitherto unorganised workers. Now it may be doubted whether differences of skill in the past would have had the influence they seemed to have on wages, if skill had not been backed by organisation. To-day the inequalities in organisation have been largely redressed, and it is unlikely that the disparity of earnings between so-called "skilled" and "unskilled" workers will be as great again as it was before the war.

A third way in which a change in organisation has affected wages is in the great extension of the legal regulation of wages. The Government found itself compelled to fix by authority the wages of ill-organised and unorganised women workers on munitions during the war. By the Wages (Temporary Regulation) Act it continued this protection for a year after the war. Since then it has provided a permanent safeguard, in the extended Trade Board system, against individual bargaining and the exploitation of the weakest wage-earners. If the use of Trade Boards, not only to protect unorganised workers, but to make effective standard rates in partly organised trades, survives the attacks that are being made upon it, the disparity in bargaining strength between trades that before the war were effectively organised and trades that were not will have been still further reduced.

To my third and fourth heads, markets and nature of work, I can do no more than refer. The former requires an examination of the world economic situation that would take too long, the latter a technological survey of industry that only technological

experts could make. It is clear, however, that important and lasting changes have taken place under both these heads, and a consideration of them is necessary in settling any particular wage claim. It is possible, for example, that the higher level of unemployment in the cotton industry as compared with woollen and worsted, wages bearing about the same relation to pre-war rates in both industries, is to be attributed to the greater dependence of cotton on export; and that in engineering important changes in methods of production, tending to increase the value of semi-skilled and diminish that of skilled labour, have had their influence only delayed by the Restoration of Trade Practices Act.

III

The changes we have considered so far are changes affecting the relations between wages in different occupations, the result of which will be to alter pre-war relations. It may seem that to attend exclusively to these is to neglect a more important aspect of the wages problem, that of the general level of real wages. The general level cannot, however, be regarded as altogether a separate question; it is only the average of the particular levels; when all the influences affecting these have been considered, the influences determining the general level must have been considered. As a figure, it is the resultant of the figures of the particular levels, and its ascertainment must wait on the settlement of these. There is, however, a sense in which it is a separate question, or at any rate a question requiring separate consideration. In considering wages in a particular industry, it is natural to concentrate attention on the factors peculiar to that industry and to neglect wider underlying influences affecting the industry of the country as a whole. It is worth while, therefore, making an attempt to indicate and classify the wider influences which tend, not to raise wages in some industries and depress them in others, but to raise wages in all industries or to depress them in all.

The attempt is the more necessary inasmuch as, in considering wages in any particular industry and making allowances for changes that have affected it peculiarly, it is necessary to frame some idea of the movement of wages as a whole, to serve as a sort of base line from which to make these allowances. With pre-war wage relations dislocated and every trade uncertain where its wage level will settle, the actual average level will mean very little, and some estimate of the possible and probable general

level after the war becomes necessary. It is the combination of this element with the other that makes disputes so difficult and obstinate, and prevents settlements from having any finality. Workers in trades that have improved their relative position resist reductions not only on selfish grounds, but also because they feel they are fighting the battle of the wage-earners as a class; while workers whose relative position has been worsened tend to regard the reductions, to which the state of trade has compelled them to submit, as merely a temporary concession, which will not prevent the recovery of their old relative position when trade improves.

This new aspect of the problem—the general influence of the war on wages and the resultant general level that individual trades must assume—is so vast and offers such unlimited scope for inconclusive estimates that I hesitate to approach it. If I offer a few fragmentary observations upon it, it is not because I believe they provide a satisfactory answer to the problems raised, but only because the general refusal to face the problem is obstructing any satisfactory handling of post-war wages disputes, and merely to discuss it is useful. Moreover, in the absence of any discussion the tendency is in public discussion to take the pre-war level of money wages, allow for the change in the cost of living as measured by the Ministry of Labour index-number, and take the result as a guide to what the post-war general level of wages should be. This procedure involves two unwarrantable assumptions: first, that the post-war level will be identical with the pre-war level of real wages; and, second, that changes in the cost of living may be taken as an index of what industry can pay in wages.

A priori it is unlikely that an event so great as the war would have no effect on the level of real wages; the general influences of the war to which I shall turn in a moment support this *a priori* conclusion. The habit of comparing wage rates and cost of living is to be deprecated also because it tends to keep alive as a norm or standard the pre-war system of wages, and so to obstruct the modifications rendered necessary by the changes we have already reviewed. Cost of living is an unsafe index of what industry can pay, because the cost of living of the wage-earner depends mainly on the price of goods which British industry does not produce. We import half our food; our own activities are devoted largely to fine manufactures for export. It is necessary in the present unsettled state of credit and the currency to adjust money wages to changes in the value of money; but this

should be done, if it is to be done automatically, by using an index-number of prices in which the prices of the things that England sells have at least as much weight as the prices of the things she buys. As it happens, the movement of the cost of living since the war has not diverged greatly in time or direction from the movement of commercial conditions in general; but that is due to the inability of farmers in America and other new countries to curtail production of wheat and meat as soon as it became unprofitable. Once they have cut their losses, agricultural prices are likely to rise and to send the cost of living up; there is no similar reason for believing that industrial receipts will rise, so that, if we insist on basing wages on cost of living, we may make it impossible to employ even the present proportion of our industrial population.

Some consideration of the general influence of the war is therefore necessary. It seems to me it may be summed up by saying that the war reduced the country's economic resources and restricted its commercial opportunities.

The country's resources have been reduced. A country's chief resource is its working population, and it is a surprising result of the fall in the birth-rate during the war that the male population of working age increased more rapidly during the war than the total male population. But the industrial quality of this population was lowered. The 700,000 men whose lives were lost were most of them in the prime of life, trained and experienced in their work; the youths who have grown up to take their places have still to be made industrially, and a large proportion of them had their industrial training abbreviated, and their industrial experience at the most vital period interrupted, by war service. Moreover, of the surviving majority of the military population, a million are in receipt of disablement pensions.

By the side of the loss of labour force is to be set the loss of capital. While population has continued to grow, five years' normal additions to capital have been lost. Large additions to capital equipment for munitions purposes were made; but the value of this for the ordinary purposes of peace must be heavily discounted, and against it must be set the loss of material capital in commercial industry due to neglect of repairs and renewals during the war, of the magnitude of which the £60,000,000 compensation granted by the Government to the railways is an indication. Nor has any progress since the Armistice been made in repairing the loss of capital. The big figures of subscriptions to new industrial issues conceal a big reduction in the amount of

saving; their size is due solely to the inflation of values. Converted to 1913 values at the average price level of each year, the £1,073 millions of new subscriptions in the four years 1919 to 1922 represent only £473 millions, little more than two years' saving at the pre-war rate.

These lessened resources are further reduced by the diversion into uneconomical channels that we have already noticed. The overcrowding of the munition industries, the chief factor in disturbing pre-war relations between rates in different occupations, involving as it has done the specialisation of labour to tasks for which the world at peace had little demand, is equivalent to a reduction in the amount of the labour exerted by the population. The similar diversion of capital is equivalent to a reduction of capital, which is expressed in the present-day Stock Exchange values of the securities of mushroom munition firms. The diversion of both labour and capital into these relatively unproductive channels continued right through the trade boom that followed the Armistice.

This reduction in the country's resources is reflected in the figures of physical volume of output in those industries in which we have any measure. Coal and pig-iron production, in spite of large increases in numbers employed, never reached during the boom 90 per cent. of the 1913 level; manufactured exports reached 80 per cent. of the 1913 volume in only one quarter. In steel production and shipbuilding there was attained for a short period a rate of output exceeding the pre-war rate; but it was followed by an equally exceptional decline in output and a growth of unemployment. The general reduction of hours led in most industries to a reduction in output, which has not been yet, though it may be in a few years, made up by an improvement in the pace of work.

While the country's resources have been reduced, the world's effective demand for the country's services has also been reduced. More than any other country Great Britain has built on world peace. In the nineteenth century we developed an industrial organisation of extraordinary efficiency for the purpose of supplying a world that is willing and able to take our products, but at the same time extraordinarily dependent on such a world. Any big changes in the direction of this organisation—whether to satisfying a larger portion of the country's domestic demand and a correspondingly smaller foreign demand, or in the way of compensating by an enlarged Imperial trade for the reduction in our European markets—involves a loss; it is an attempt to use

the machine for a purpose different from that for which it was constructed; and, although a gradual change in direction is constantly going on, it is effected without loss only because it is gradual and because it is the result of purely commercial, not political, influences. The war has affected both the willingness and the ability of the world to take British products—the willingness, because it intensified nationalist feeling and stimulated nationalist economic policies; the ability, because it dislocated the industry and reduced the resources of other belligerents as it did ours—and we are experiencing our dependence in the form of abnormal unemployment.

The significant features in our foreign trade are the reduction in the volume of our exports and the steady trend back to the pre-war distribution by markets. The volume of exports of United Kingdom products, as measured by exports at 1913 prices, reached its highest point since the Armistice in the June quarter of this year, when it was just over 80 per cent. of the 1913 volume. The trend of trade is indicated in the following table of percentages:

British Exports.

Percentage of Total Value to	1913.	1919.	1920.	1921.	1922.
British Empire . .	32·7	20·0	30·6	34·9	33·8
Europe	37·6	57·0	40·4	35·1	37·6
Non-European Foreign Countries	28·1	21·3	27·4	27·7	27·1
France	6·4	19·0	11·3	7·0	8·0
Germany	9·5	2·4	3·3	5·0	6·0
British India . . .	11·3	7·5	11·8	13·8	11·3
U.S.A	9·4	6·8	8·4	8·0	9·3

It does not look as if there were any easy alternative to our pre-war commercial relations; it is a world with similar, if diminished, wants that we have to work for. We may have gained at certain points—Europe is probably more dependent, not less, on British coal—but in the main the war has tended to reduce for the time being the country's real income from exchange, as it has reduced the resources with which it gains that income.

A more favourable view of the prospects of British industry would be taken if we looked only at the statistics of profits. The companies, whose results the *Economist* gives each year, showed returns on their preference and ordinary capital at an average rate of 10·3 per cent. on their ordinary share capital in 1921 and 7 per cent. in 1922—extraordinary figures in view of the unemployment that prevailed. These figures, however, are

not decisive. A large part of the dividends were paid out of reserves; while the profits actually made in the two years would represent the earnings of differential advantages over marginal firms. Employment depends on the ability of the marginal firm to pay its way; there may, therefore, be great unemployment and yet profits be made by firms that are not marginal.

IV

There is not much justification in these facts for the common assumption that the pre-war rate of wages can be taken as a starting-point in wage discussions. Even if an improvement in the world economic situation makes possible a restoration of the pre-war level of real wages on the average, the changes we have reviewed render it unlikely that all occupations will be able to secure full employment at that level. Some trades will have gained and some lost by the war.

We have to look elsewhere for an indication of the general level that post-war conditions will allow. The problem is to find some sort of a base line, by reference to which allowance can be made for the various changes altering the relation of wages in one trade to wages in others. It arises because occupations vary widely in the speed with which they respond to changed economic conditions. At the one extreme are the iron and steel trades, that have accepted the full force of the commercial depression by sticking to their sliding scales, and, since 1921, the coal industry; at the other extreme are the employees of public authorities, effectively insulated from any immediate shock from changes in the economic situation. The cost-of-living sliding scale has done something to relate wages in the latter occupations to commercial conditions, but only by accident, so that they certainly cannot be taken as our base line. The former group, on the other hand, exaggerates the fluctuations in wages which the change in the economic situation requires; nevertheless they form a better indication than the other group of the national economic fortunes.

The indication we are looking for is probably to be found in the important export industries. Just because they work for foreign markets, they are compelled to adjust their costs to a competitive level, and wages in them reflect the changed conditions of the post-war world. Moreover, a country dependent for maintaining a reasonable standard of life on foreign trade cannot for long allow the workers in industries working mainly or exclusively for the home market to enjoy better conditions

than workers in export industries, without running the risk of starving the latter and so depriving the former of the source of their good conditions. Before this indication can be used, however, it needs correction in two or three respects. In the first place some allowance has to be made for the inclusion in the average of industries like engineering, in which overcrowding induced by the war has forced wages lower than they would have fallen if influences on the demand side alone had been operative. In the second place, allowance must be made for the effect of transient influences (at least one hopes that they are transient), like the occupation of the Ruhr, that tend to depress wages in the more sensitive industries (or raise them, as in the case of coal) below the level which represents a fair allowance for the more permanent effects of the war. On the other hand, it is possible that wage rates are still at a level at which full employment is unlikely in some industries, in which after great reductions unemployment is still four and five times as great as in a bad pre-war year. It may be undesirable to reduce them further in these cases, but the alternative is to check the influx of new labour and assist the efflux of labour at present dependent on these industries.

To conclude; the post-war wages problem is the problem of restoring to the wages system the stability that it possessed before the war. This can be done only by modifying the pre-war system to allow for the accumulated changes of five years of war. In making these modifications we are forced to seek some sort of a guide as to the general relation which post-war wages will bear to pre-war wages, and I have suggested that this guide is to be found, with certain corrections, in the average level of wages in export industries rather than in the pre-war level adjusted to allow for the increased cost of living. I have not tried to do more than define the problem, and to catalogue some of the factors in it that the union and association officials, arbitrators and others who fix wages will have to take into account, congratulating myself that I do not share their responsibility. But even this may be of use in view of the urgency and difficulty of the problem. Before the war a mistake in adjusting wages to commercial conditions was not serious; it might cause a slight increase in unemployment, but the rising tide of demand, as society got richer, would correct the mistake. To-day, with perhaps a fifth of the labour force of the country standing idle, there is not the same certainty that society is getting richer. The problem of fixing wages is therefore more delicate and the stakes involved in every decision are heavier.

HENRY CLAY

THOSE EMPTY BOXES

§ 1. A YEAR ago the pages of this Journal were enlivened by a battle of giants. The contest raged over the practical utility of certain refinements of analytical economics: in particular it was debated whether the theoretical sorting of industries into boxes labelled "diminishing return" and "increasing return" could be turned to practical account. Into that mêlée it is not my purpose to enter directly, though I think that my suggestions, if correct, may have some bearing upon its issue. My purpose is an even more presumptuous one—to engage, albeit armed with an apparatus as defective as David's, one of the giants upon his own ground, and to cast a pebble which, if it glances innocuous from that august brow, may perhaps at least elicit an explanatory roar.

My aim then is to echo, and I hope to expand, certain criticisms which have been wafted across the Atlantic of the analytical mechanism elaborated by Professor Pigou in his *Economics of Welfare* for dealing with these conceptions of diminishing and increasing return. I desire to suggest that the character of that mechanism (1) renders the "filling of the boxes" unnecessarily difficult; (2) prompts to a use of the boxes, if filled, which under certain conditions of political and economic development might become positively misleading and dangerous. And I desire to suggest that this unfortunate result has its roots—I will not say in an unhappy choice of terminology (there are limits even to David's presumption), but in a tendency to discover a simplicity of parellelism where none exists, and to submit disparate materials to an identical logical process. The boxes, if I may make free with the metaphor, are not in my view properly to be loaded upon the same cab. It is almost as though one were a hat-box, and the other a monstrous compound of a box at the opera and a box growing alongside a garden path.

§ 2. Now first, while far from insisting that this question of terminology is fundamental, I must be allowed my private grumble about it. By industries which obey the laws respectively of diminishing and increasing return I take to be meant those in which the average full expenses per unit of product respectively

increase and diminish as the scale of production is expanded.[1] In spite of Dr. Marshall's arguments to the contrary,[2] I wish heartily that English-speaking writers could agree to speak of such industries as obeying respectively the laws of increasing and decreasing cost.[3] What superfluous confusions about the emergence of rent in manufacturing industries, what regrettable misunderstandings of the teaching of economic science about the relation of agricultural progress to the problem of population,[4] could have been avoided if the phrase "the law of diminishing return" could have been tied down to denoting the results of either (*a*) applying successive doses of one factor to a fixed quantity of all the others, or (*b*) applying successive doses of all the factors but one to a fixed quantity of that one! And even that much duplicity of function would seem to entitle it to extra pay! I look forward to the time when this hard-worked phrase, relieved of all other duties, shall thus be confined to expressing the great unifying principle which runs through the whole theory of distribution—surely a sufficient honour to content the most ambitious company of words.

I propose, therefore, to speak of "decreasing cost" industries and "increasing cost" industries; but I repeat that I do not intend that this choice of phrasing shall alter the substance of my argument.

§ 3. And now to business. Professor Pigou's most momentous conclusion is that under conditions of free competition production in "increasing cost" industries is carried further, and in "decreasing cost" industries less far than the true interests of society require. I shall not attempt to summarise his argument, but shall give such references as will enable the reader to refresh his memory of it.

Let us confine ourselves at present to "long-period" conditions, in the sense that we are not concerned with the effects of cyclical or other temporary fluctuations of demand. And let us deal first with "decreasing cost" industries in the sense defined. Now the first point is that, so far as I can see, this apparently harmless phrase covers two sets of analytically quite distinct phenomena. As the scale of output of an industry is increased,

[1] Professor Pigou does not himself use this definition; but it appears consistent with, and is indeed derived from, the definition and properties of his "supply-curve" (*Economics of Welfare*, p. 933).

[2] *Principles*, p. 319 n.

[3] See Professor Bullock's most valuable article, "The Variation of Productive Forces," *Quarterly Journal of Economics*, August 1902.

[4] A distinguished Colonial professor still, I believe, boasts publicly of his intention of disproving the existence of the law of diminishing return from land.

the average cost [1] per unit may fall for either of the two following reasons. (I) In some branches of production the process of investment of fixed capital is, from the nature of the case, lumpy and discontinuous; and once such a process is completed, the larger the number of units of output produced (or, to put the same thing in a different way, the larger the number of units of floating resources of all kinds employed) the smaller the share of fixed capital charges which each unit has to bear, and the less therefore, in general, its full cost. "We may take the production of a medal as a type of such a supply. For we may suppose that it costs a manufacturer of medals £20 to produce a steel die, and after that has been made it costs him 5*s*. for the metal and stamping of each medal. If then he produced only one medal the cost would be £20 5*s*. If he produced two medals, £10 5*s*. each. If he produced fifty medals, the cost would be 13*s*. each; and so on." [2] Note first that such a statement may well represent, not an evanescent state of affairs, but the permanent conditions under which an industry (such as newspaper enterprise?) is operated. Note secondly that the element of time, so often the source of all our troubles, is here as nearly as possible innocent: a raising of the demand schedule for the medals (occasioned, say, by the establishment of a permanent state of war) will instantaneously lower their average cost.

But (II) decreased average cost may accompany expanded output for another reason, namely, because, *given time*, methods of technique and of organisation are capable of improvement in any one of a myriad different ways, so that ultimately a larger output can be produced at a lower cost per unit than that at which a smaller output was previously produced. I do not pretend that this class of cases is entirely unconnected with the first class; for the "economies of large-scale production," and among them the installation of large and specialised pieces of plant, are among the causes of the prevalence of decreasing cost in my sense (II). But the difference between the classes can be seen by reflecting that *nothing but a raising of the demand schedule* can be relied upon to establish a lowered cost in Class (I), while the progress of time, the enterprise of producers and the occurrence of invention [3] are expected, without necessarily any alteration of normal demand, to produce this result in Class (II).

[1] I use this word henceforth as an abbreviation for "full expenses of production."

[2] Cunynghame, *A Geometrical Political Economy*, p. 57.

[3] Dr. Clapham's query whether invention is to be classed among the causes of "decreasing cost" must clearly, on my definition, be answered in the affirmative (Economic Journal, 1922, pp. 314, 562).

§ 4. But already I seem to myself to hear a triple growl from the giant. (A) First, " Have I not made it clear," I hear him ask, " that for simplicity's sake I conceive of the resources applied to industry as a homogeneous flow (*Economics of Welfare*, p. 114)? And how am I touched then by that discontinuous £20 steel die, or by your distinction between fixed and floating resources, which I have decided to ignore?" And I can only reply, Yes, he seems to have made that clear. But I shall go on to urge three things. (1) There is no doubt that, in ordinary discussions of the phenomenon of decreasing cost, industries of my set (1) play a very large part. It seems to be of such cases that Prof. Edgeworth[1] speaks as " so important as often to obtain the title of Increasing Return *par excellence*," and of the five sets of conditions which he distinguishes as " attended with the attribute Increasing Return," two indubitably turn on this principle of the discontinuity of investment and the economy of multiplication.[2] (2) The case is covered by Professor Pigou's diagrams in so far that while, in the case of our medal-manufacturer, the " curve of marginal supply prices " (*Economics of Welfare*, p. 931) would become horizontal after the second medal, it would remain continuously below the supply-curve, and cut the demand-curve further to the right than the supply-curve does. (3) But I can appeal more directly to Professor Pigou. He states specifically (*op. cit.* pp. 275–6) that " among railways there is ground for believing that, at all events until considerable development has been reached, this condition [strong action of the law of increasing returns] is generally satisfied. The reason is that the fixed plant of a railway cannot, in practice, be so made as to be capable of effecting less than a considerable minimum of transportation. The aggregate costs of arranging for rail transport for one ounce per week are very nearly as great as those of arranging for the transport of many thousand tons. . . . This implies increasing returns acting strongly till a large investment has been made, and afterwards less strongly." There can indeed be no question that Professor Pigou's analysis is intended to apply to railways; nor that, in Ripley's words,[3] " from this fact [discontinuity of investment], therefore, rather than because of any marked economies of large-scale production,

[1] " Contributions to the Theory of Railway Rates," ECONOMIC JOURNAL, 1911, p. 370.

[2] *Ibid.*, pp. 553–5.

[3] Quoted by Edgeworth, " Contributions," etc., ECONOMIC JOURNAL, 1913, p. 217; who, while holding that other conditions generating " increasing return " have been too much ignored by writers on Railway Economics (*ibid.*, 1911, p. 553), seems to concur in giving such considerations the primacy.

may it be affirmed that railroads offer a notable example of the law of increasing returns." If, therefore, Professor Pigou tells me that his apparatus of a homogeneous flow of resources is not a suitable one for dealing with my Class (I) industries, I shall joyfully agree; but if he forbids me on that account to discuss them with him, I shall decline to obey.

§ 5. (B) But there is another door of escape for the wounded giant which I think it prudent to bar. We are dealing so far with a regime of competition; and he may tell me that my adopted medal-maker is not a true subject of that regime. If he were, and if he found that £10 5*s*. were the ruling price for medals, he would produce not two, but ever such a large number. The fact that an output of two is associated with a price of £10 5*s*. indicates that he is regulating output with an eye to the effect of his actions upon the price of his product, which is improper conduct in a denizen of the realm of competition, even though to act otherwise would, by preventing him covering his total costs of production, drive him out of business. Now poor David has no weapons with which to attack this mathematical conception of pure competition. But he knows, or thinks he knows, that his Class (I) industries exist, and that they do not all exercise monopoly powers, but that in their case, as in others, normal competitive price must in the long run cover supplementary as well as prime costs. He is even prepared to invent for his own use a meaning of the term "competition," which shall imply that producers are not in a position to make monopoly profits, but *are* free, and determined, in the long run to cover their standing charges. He suspects that printing, and in most countries in normal times railways, are conducted permanently on these lines, and he is tempted (but without falling) to hazard further attempts at filling this particular sub-box. He suspects too—a point to which he will return—that it is "competitive" conditions of this kind that the State, if it takes over an industry, should (unless for good reason to the contrary) seek to emulate.

(C) There is one more loophole—will the giant make for it? Will he charge me with neglecting his warning (*op. cit.* p. 115 and p. 931, note) that whatever the scale of output, the flow of resources must be conceived of as organised appropriately to that scale? I shall not plead guilty; for whether my medal-maker is turning out two medals or fifty, he must be assumed to be acting in the most sensible way open to him. The relatively high cost per unit of the smaller output is due, not to any lack

of judgment on his part in combining his factors, but to technical facts beyond his control.

§ 6. I shall assume, therefore, that I am entitled to discuss with Professor Pigou both my types of "decreasing cost" industry, and to discuss them separately. Let us take Group (I) first.

Let us suppose that m units of fixed resources (typified by the steel die) have been sunk in the industry, and that n units of running resources (typified by metal and labour for stamping) are being employed in conjunction with them, and that p units of output are being produced. Professor Pigou's analysis (*op. cit.* p. 937) leads us to suppose that, in the social interest, p should be such that the additional units of output specifically attributable to the addition of the nth unit of running resources should sell for a price which adequately remunerates that nth unit of running resources. In our concrete case, if demand is such that fifty medals can be disposed of at 5*s*. each, fifty medals should be produced, since the fiftieth medal is the "net product" of the marginal 5*s*. worth of resources, and 5*s*. is the "marginal supply price" for an output of fifty—the difference made to aggregate expenses of production by organising production so as to produce fifty instead of forty-nine (*op. cit.* p. 931).

Now I deny that this pth unit of output is in any significant sense the net product of the nth unit of running resources.[1] It is the net product of [that unit $+ \frac{m}{p}$ units of fixed resources]. The fact is that these m units of fixed resources yield *no* product unless at least one unit of running resources is applied in conjunction with them, and that in order to make sense at all we must credit them with a part of any additional output which appears at first sight to be specifically attributable to the addition of any nth unit of running resources. Professor Pigou's statement (*op. cit.* p. 190) that when any given aggregate of resources is devoted to an occupation, any one unit of those resources must be conceived of as yielding the same net product as any other, leads me to suppose that he would agree with this view; but, on the other hand, the rest of his analysis, and especially his treatment of the railway problem, leads me to suppose that he would not. For if the view is correct, the whole case for

[1] In our concrete case, we can choose our units so that p always $= n$. If the special costs per medal for labour and materials either increase or diminish as output is expanded, the argument becomes slightly more complex in form, but is unaltered in substance.

carrying production in this group of "decreasing cost" industries beyond the competitive point seems to me to vanish. And consider how paradoxical that case is! For if it is sound, the logical outcome seems to be that the State, if it takes over an industry of this type, is entitled to neglect altogether, in determining its price-and-output policy, the costs of the fixed capital embarked, paying for them presumably out of taxation, and pushing production to such a point that price covers only the special costs of the *p*th unit of output. Whereas, if my view is correct, the State (unless for clear cause shown) ought so to regulate output that aggregate receipts cover aggregate costs without yielding monopoly profits. Even if through want of capacity I have misunderstood the giant's analysis, let me try to pin him down to this supremely important point of practical policy. Suppose discrimination to be ruled out, as in the sale of Government publications (for I see an avenue of escape for him along the road of discrimination), how should such a nationalised enterprise (any broader social reasons for subsidisation being disregarded) fix the scale of its output and its charges? Does his analysis or does it not lead directly to the conclusion that it should claim to be subsidised to the extent of the whole burden of the charges of the fixed original plant? And can this conclusion possibly be sound? And if not, what logical half-way house is there between this procedure and charging so as to cover total costs, *i. e.* simulating the conditions of free competition?

§ 7. Now let us turn to my second group of "decreasing cost" industries—those in which an enlarged output is associated with a decreased cost per unit of output as a result of the introduction of improvements in technique and organisation. How far is it true that in these industries output is smaller than is socially desirable, and might be brought to a socially more desirable level by some form or other of State intervention?

Now it is these industries that, at any rate in the prelude (*op. cit.* pp. 189–192) to his discussion of the whole matter, Professor Pigou seems to me to have uppermost in his mind. His explanation there given of the failure of competition to produce the best results must therefore be carefully noted. The employment of an additional unit of resources in any industry may, it appears, so modify the general organisation of the industry as to make each of the units of resources employed in it yield a different net product from what it otherwise would have done; but since, under pure competition, the individual who has made the extra

investment experiences only a very small part of the effects of this indirect impact upon general organisation, it is not to be expected that the probable nature and total magnitude of these effects should appreciably influence his actions. The relevance of this doctrine to " increasing cost " industries does not concern us here: as applied to " decreasing cost " industries, it can only mean that all the improvements in organisation from which " decreasing cost " arises are of the nature of " external economies "—" those dependent on the general development of the industry " [1]—, the familiar " internal economies "—" those dependent on the resources of the individual houses of business engaged in it, on their organisation and the efficiency of their management " [1]—having vanished into thin air.[2]

Now once again I am conscious of being up against the mathematical theory of pure competition, and aware that that is so much the worse for me. But I cannot let it rest at that. I recall to mind the " representative firm," which " has its fair share of those *internal and* external economies, which appertain to the aggregate scale of production in the industry to which it belongs "; [3] whose size, " while partly dependent on changes in technique and in the costs of transport, is governed, other things being equal, by the general expansion of the industry," and is therefore clearly to be regarded as capable of significant variation: [3] and which is nevertheless certainly a denizen of the realm of competition, and indeed plays a commanding part in the theory of normal competitive price. I even take the supreme risk of starting to fill the sub-box under consideration, by flinging into it at a venture electrical engineering and cinema-film manufacture, in order to confirm my impression that any likely occupant of the sub-box is almost sure to be carried on by firms who *are* capable of introducing and appropriating internal improvements in organisation and technique. I cannot, therefore, bring myself to believe that, under any conception of competition which is appropriate to the matter in hand, the phenomenon of decreasing

[1] Marshall, *Principles*, p. 266.

[2] So determined is the Professor to banish these old friends that, disturbed by the apparent theoretical incompatibility of pure competition with the prevalence of decreasing cost at all, he seems to hold (p. 192) that each firm is (? or would be if it were isolated) working under conditions of increasing cost while the industry as a whole is working under conditions of decreasing cost. I would prefer to offend the mathematical theory of competition than to follow him through this logical hole in his own logical net; therein agreeing with Professor Allyn Young, who " cannot imagine ' external economies ' adequate to bring about this result " (*Quarterly Journal of Economics*, August 1913, p. 678, note).

[3] Marshall, *Principles*, p. 459. My italics.

cost can be explained entirely in terms of external economies: nor, therefore, that if the rigid mathematical disharmony which Professor Pigou predicates (*op. cit.* p. 938) between competitive and socially desirable output really exists, it is to be explained on this ground of the certainty that the individual producer will not reap the reward of his own improvements. And in order to test this conclusion, I make my old supposition. Suppose an industry of this character to be administered in trust by a National Guild. Since the disharmony of interest due to the externalisation of economies is removed—since the Guild can be certain that the full advantages of any improvement which it makes in organisation will be enjoyed by itself alone—it would be natural to infer from Professor Pigou's analysis that such a Guild will produce what he holds to be the socially most desirable output—that is, will push production to a point at which the product of the marginal unit of resources is sold for a price which just affords adequate remuneration to that marginal unit. But of course it will do no such thing, for that would be to carry on production at a loss. It will regulate output in such a way that total receipts cover total costs—that is, it will seek to establish deliberately the equilibrium which tends to be established automatically under conditions of competition.

§ 8. If, therefore, competition really offends in the rigid mathematical manner asserted, we must look for some other explanation. And I can find none. I am led on to question the relevance of Professor Pigou's whole apparatus to this group of "decreasing cost" industries as well as to the other. Is not the body (whether private monopolist or State) which seeks to improve substantially [1] on competitive output in such cases seeking to voyage *pennis non homini datis*, and not merely to penetrate the secrets of Time, but to do that leisurely old gentleman's work for him? I struggle out of the giant's embraces into the peaceful enclave of my hard-won prejudices about the nature of decreasing cost of this type:—that it only means that, given time and the progress of organisation, a larger output can be produced at a lower cost per unit than a smaller output used to be. We used not to dare conceive of falling cost per unit as a determinant of increased output, but only as resulting from it, or at the rashest as "being associated with it." [2] Dare we, there-

[1] For I have some qualifications to make, below, § 9.

[2] Cp. Marshall, *Principles*, p. 45, note. "But in real life the cost of production per unit is deduced from the amount expected to be produced, and not *vice versa*. Economists commonly follow this practice."

fore, conceive of falling " marginal supply price " as a potential determinant of increased output, as Professor Pigou seems to do when he comes to discuss the actions of a monopolist with powers of discrimination (*op. cit.* pp. 248, 950)? Let me make my full confession. I do not believe the " curve of marginal supply prices " has any message for us at all in connection with my " decreasing cost " industries of Group (II). I can attach a meaning to him in connection with my Group (I), and though I do not regard him as such a socially desirable character as Professor Pigou does, I can see his bearing on certain problems of price-discrimination. But in our present surroundings I do not want him at all. I am content with an old-fashioned supply-curve, the locus through time of the end-points of a number of " particular expenses curves," each of them indicating the conditions of production in a given state of organisation. And I am content to suppose that at each point on the locus competition, by producing just so much that total receipts cover total costs, is *on the whole* securing the best results at that time and in that stage of organisation attainable.

§ 9. *On the whole*, for having cleared away the alleged rigidly mathematical sins of competition, we are now free to consider its not precisely measurable peccadilloes. For I have no wish to deny that the State, by well-devised intervention, can in certain cases accelerate the improvements in organisation from which decreasing cost arises. It can artificially raise the demand-curve by protective tariffs; it can artificially lower the particular expenses curve in force for the time being by the grant of well-administered subsidies; and in either way it may enable any given point on the original supply-curve to be reached earlier than it otherwise would have been. This would be true even if all economies were " internal "; but the admitted fact that some of them are " external " strengthens the point; for I have no wish to deny that the uncertainty of enjoying the full fruits of one's labours retards progress.[1] I have no theoretical quarrel, therefore, with the old-fashioned " infant industry " argument for protection or subsidisation, which it seems to me would remain intact even if Professor Pigou's constructions were to collapse, and which indeed is supported by him without the aid

[1] But it might, I think, be argued that under competition, since each supplier is chronically tempted to cater for a larger part of the market than is in fact likely to fall to his share, those experimental enlargements and improvements in which some of the roots of " decreasing cost " are found are more likely to take place than under a regime of single supply, even if the latter does not seek monopoly profits.

of their more intricate scaffolds (*op. cit.* p. 122). But the aim of such State intervention must be clearly conceived. It is not to maintain permanently a production which is "uneconomic" in the old-fashioned sense that receipts do not cover costs, but, at the expense of temporary loss, to bring about more quickly a state of affairs where production is still "economic," though larger than before. Such a policy of subsidy is, therefore, quite different in nature from the policy of *permanent* subsidy to "decreasing cost" industries recommended, at least in theory, by Professor Pigou (*op. cit.* p. 193).

§ 10. Has David grown bolder? Or is the giant really an easier mark when he stalks through the pastures of "increasing cost"? At any rate I take up my sling with alacrity.

What meaning are we to attach to the curves which exhibit the disharmony between competitive output and socially desirable output under conditions of increasing cost? We must return to the already-quoted prelude (*op. cit.* pp. 190–191) for Professor Pigou's answer. We find there that the employment of an additional unit of resources in an industry may modify *unfavourably* the general organisation of the industry, so as to make each unit of resources there employed yield a *smaller* net product than it would otherwise have done. And since, as we have seen, Professor Pigou conceives of each supplier as producing an indefinitely small proportion of the total output, these unfavourable results are felt almost entirely by other suppliers. In other words, we are asked to recognise the existence of "external diseconomies"[1] arising from the increase in output, and sufficient to produce the rigid mathematical defect of competitive output from the output socially desirable.

Now external economies we know, even if we refuse to yield them exclusive homage: transport developments, the telephone and the trade journal, the shop of the club and the market-price, subsidiary industries, a skilled labour supply,—we have all at some time tried to memorise and to reproduce the formidable list. But these external diseconomies, mathematically no less powerful, who in the world are they? Can we not be told at least one of their names? We are told in an appendix that "the reason why diminishing returns in terms of money appear where they do appear is, in general . . . that that proportionate combination of factors which it is most economical to employ when $(x + \Delta x)$ units of commodities are being produced is in

[1] I am not attempting to father the actual phrase on Professor Pigou, but must ask him to admit parentage of the conception.

general a less efficient proportionate combination than that which it is most economical to employ when x units are being produced" (*op. cit.* p. 936); but we seek in vain for a further word of explanation, or for any word at all of illustration. Out with your pebble, David, and get it over! You do not believe that there are "no sich persons."

It is natural that we should fall back on what we learnt long ago about the phenomenon of increasing cost. We know that additional applications of capital and labour to a given piece of land yield after a point a diminishing return of product; we know that the supply of land, and still more the supply of land of any particular quality, is limited; and we know that in industries making, directly or indirectly, a large use of land, the influence of these facts may overbear the influence of improvements in technique and organisation, and bring it about that, even if we allow for the progress of time, a larger volume of output is produced at a greater cost per unit than that at which a smaller volume of output used to be produced. Herein I am content to find the sole and sufficient explanation of the phenomenon of increasing cost. But I see no reason at all to infer from this state of affairs that production in such industries is being carried further than the social interest dictates. The land itself, and the other factors employed with it, are presumably each being employed up to, but not beyond, the point at which any further application would be less advantageous to the individuals concerned than application in some other field; and I see no cause for suspecting in this matter any but special and incidental disharmonies, of varying and indefinite magnitudes, between the interests of the individual and of society.

§ 11. But this, the giant may say, is to evade his fortifications, not to overthrow them by frontal attack. I must reply that that task, in my judgment, has been performed. Professor Allyn Young, accepting the twin curves but not the inferences drawn from them, argues that the reason for the excess of the "marginal supply price" of any given volume of output over its average cost per unit, lies in the necessity which increased output entails of paying higher prices for the land employed in yielding every unit of output, and not in any attraction of real resources to the industry beyond those specifically employed in producing the additional units of output.[1] I am convinced by this, and unshaken by the Professor's reply (*op. cit.* pp. 934–6), which

[1] Review of *Wealth and Welfare* in *Quarterly Journal of Economics*, August 1913, p. 683.

turns once more on the negligibility of the relatively small. Any given industry, he states (a generous exception is made for "dominant crops" such as wheat), uses so small a proportion of the community's whole supply of land that it can obtain additional supplies of land without driving up against itself the price of land per unit. Yet I cannot unlearn all at once that the rent of land in any use depends on its productivity in that use, and not in some other use; I recall that farmer who has no doubt at all that it is best to grow hops on his land,[1] and therefore presumably under competition has to pay a rent appropriate to hop-growing; and I feel convinced that if there is a large expansion in the scale of production, say, of the cinema industry in any town, its effect will be felt on the rental value of the sites which that industry occupies.

And if Professor Pigou is right, how does it come about that when output is expanded a "less efficient proportionate combination of factors" has to be employed than was previously the case? I can see no reason for such a drop in efficiency, except that the margin of application of capital and labour has had to be pushed further, owing to the impossibility of obtaining indefinitely increased supplies of land at the old rent. Will Professor Pigou tell us clearly whether he conceives this drop in efficiency to be due to the operation of the law of diminishing return from land, or to some other "external diseconomy"? If the former, why should this law be brought into play if the industry can obtain the use of increased quantities of land at the old rent? And if the latter, what, once more, are these "external diseconomies"?

Meanwhile I conclude provisionally that, under increasing as under decreasing cost, competitive output, whilst doubtless not impeccable, commits no such rigid mathematical sin as that which has been laid to its charge.

§ 12. There remains a word to be said about "short periods," with reference to my Group (I) of "decreasing cost" industries. Such industries are, as has long been recognised, liable to terrible disorganisation in times of temporary depression of demand, since any hope of covering standing charges is apt to be temporarily abandoned, and slaughter prices accepted. If sellers

[1] Marshall, *Principles*, p. 436. Cf. the note on the following page: "And if for the purposes of any particular argument we take together the whole expenses of the production on that land, and divide these among the whole of the commodity produced, then the rent which we ought to count in is not that which the land would pay if used for producing the first commodity, but that which it does pay when used for producing the second."

"pursue this policy constantly and without moderation . . . they might ruin many of those in the trade, themselves perhaps among the number; and in that case a revival of demand would find very little response in supply, and would raise violently the prices of the goods produced by the trade."[1] Further, as I have argued elsewhere,[2] such a policy may be disadvantageous to output in other trades, since if the demand for the product becomes inelastic (as it may, for instance, in such circumstances for machinery or for railway transport) the incentive to output in other trades is reduced. Restriction of output is the remedy now normally proposed and frequently adopted in such circumstances, and is in harmony with the general presumption (§ 6) that price should be made to cover full costs; but it does not follow that, *if we confine our view to temporary results*, there are not other better ways of dealing with the situation. Discrimination may be practised (as in the dumping policy of cartells), or a State subsidy may be given (as in effect proposed recently by the Industrial Group of Members of Parliament, and to some extent already done under the Trade Facilities Act), or, perhaps better still, the State might assist in storing the results of continued output clear of the market until demand revives once more.[3] I am far from denying that such devices have their place in dealing with emergencies; and I concede, therefore, that in such cases it may be right to push production in these industries beyond what is at the moment the "economic" point (in my sense of receipts covering costs). But I suggest that this is a wholly different matter from a permanent policy of subsidisation; and I would urge further that in all such emergency measures the urgency of the immediate necessity must be weighed against the danger of encouraging *over-investment* in these industries in the future, by relieving them from the responsibility for the consequences of any excesses in investment policy in which they may choose to indulge.

§ 13. Have I fulfilled either of my remoter hopes? Have I, by attempting a further analysis of the boxes, contributed at all either towards making them easier to fill, or towards making any good use of them when filled? As to the latter, at all events, I fear that I have been destructive rather than helpful; for if I am right, the uses that can be made of them are more modest, even in theory, than has been claimed. But I have, to console

[1] Marshall, *Principles*, p. 375.

[2] *A Study of Industrial Fluctuation*, pp. 203–205.

[3] See *A Study of Industrial Fluctuation*, p. 251.

me, Professor Pigou's contention, and Dr. Clapham's admission, that even negative conclusions may be of use.[1]

And yet at the end I am a little despondent. Clad in the cuirass of the calculus, the vizard of unverified probability, and greaves of the second order of smalls, perhaps the giant is still unscathed and derisory. But will he at least—for he is a gentle giant—deign to pick up David's pebbles and fling them back at him? For David is humble at heart, and would like to sing new songs to his sheep if only he really understood the tunes. And further, being of a mischievous disposition, he would rather enjoy telling the chieftains that the stern science of economics, who has so often enjoined the contrary, now actually urges them to supply many things to the people—Ford chariots perhaps, perhaps even copies of the Psalms—at almost nominal prices.

D. H. Robertson

The Editors have invited comment from me upon Mr. Robertson's article. As I have rewritten and altered my discussion of these matters in the new edition of *The Economics of Welfare*, which is appearing shortly, it would be wasted labour to debate the old version in detail. I will, therefore, content myself with the following brief reply. Mr. Robertson must forgive me if, in the course of it, I do not speak of myself by somebody else's name or in the third person singular.

(1) The question whether the apparatus of curves presented in my book is or is not useful depends on the tastes of the user. The discussions in which I employed it could have been conducted to the same result by means of the differential calculus, or of either of Dr. Marshall's two systems of curves, or, if one were clever enough, by the light of nature, with no apparatus at all. I have no particular affection for the duplex curve apparatus. For mathematicians it is unnecessary, and to persons innocent of mathematics it appears to be unintelligible. In my new edition, therefore, I am dispensing with it.

(2) In his discussion of increasing returns Mr. Robertson does not seem to have understood the nature of the issues involved. My conclusions, which he considers new and revolutionary, are identical with those established thirty years ago by Dr. Marshall (cf. *Principles of Economics*, Book V. ch. xiii.). The suggestion that they imply a policy of subsidising nationalised enterprises "to the extent of the whole burden of the fixed

[1] Economic Journal, 1922, pp. 402, 561.

original plant," is, of course, a grotesque misunderstanding. It is arrived at, so far as I can see, partly by confusing long- and short-period conditions and partly by applying to production generally propositions that are only applicable to quantities of production less than the quantity which the minimum practicable plant could provide. Mr. Robertson is also in error in suggesting that I deny the existence of internal economies. It is fair to admit that some bad phrasing in the text—not the appendix—of my book lends colour to this suggestion. As, however, it is obvious that no economist, who is not imbecile, *could* deny the existence of internal economies, it would have been flattering in Mr. Robertson to look for some other explanation of the language used.

(3) Professor Allyn Young's criticism of my analysis of diminishing returns, which Mr. Robertson has transcribed, is, in my present judgment, substantially valid as regards long-period problems, and the reply which I made to it in *The Economics of Welfare* is not adequate. In view of that criticism important modifications in my analysis are necessary, and are made in the forthcoming new edition.

A. C. Pigou

To which Mr. Robertson rejoins:

(1) My quarrel is not with Professor Pigou's geometrical methods (like many non-mathematicians I find diagrams peculiarly helpful), but with the processes of thought which they enshrine and the conclusions which they are used to establish.

(2) On increasing return, Professor Pigou states that I am confused: I can only regret that he has not thought it worth while to clear up the confusion. He replies to my *reductio ad absurdum* (§ 6) by stating that he is not so silly as to believe the *absurdum*.

I did look for some explanation, other than a neglect of internal economies, for the language used on pp. 189–192 of *The Economics of Welfare*, and could find none. I hope other readers have been more fortunate.

(3) I attempted to criticise in detail the reply given by Professor Pigou in his second book to Professor Allyn Young's criticism of his first book. I do not think this process is quite correctly described as "transcribing" Professor Allyn Young's original criticism. But I am glad that Professor Pigou has come independently to the conclusion that his reply was inadequate.

D. H. Robertson

THE ECONOMIC SITUATION IN AUSTRALIA, 1918–23

I. The Era of Prosperity

Economic conditions during the war and for two years after were highly favourable to business enterprise and rapid development. Here, as elsewhere, the war, with its great demand for raw materials and the inflationist financial methods that accompanied it, produced an era of almost unprecedented prosperity. Prices rose rapidly and in 1920 were nearly 140 per cent. higher than they were in 1913; industrial stocks were buoyant; profits and dividends were high; exports steadily increased, and for some years greatly exceeded imports (the excess for the year 1919–20 being the record figure of £50,849,217); bank deposits expanded, and credits were always available at a rate of interest relatively low compared with the rise in prices. On every side there were abundant evidences of prosperity. It was also a period of industrial expansion. Secondary production benefited most by the artificial conditions, and the number of hands employed in factories increased by 22 per cent. between 1916 and 1920. Prices for minerals and primary products, as will be shown later, increased greatly, and the Government made satisfactory arrangements for financing production in these fields. War loans were over-subscribed, thanks to the banks and the very favourable conditions on which loans were offered; and the State Governments maintained extensive public works whilst extending their activities in social and educational spheres. Post-war expenditure on repatriation, war-service homes, land settlement, etc., added to the activity of business and made possible many lucrative contracts. The disbursement of soldiers' gratuities was another and special local factor, increasing the spending power of the people; often, it must be admitted, upon goods which in no way increased the real wealth of the country.

This expenditure of public money is very pertinent to our problem. While the total expenditure of the State Governments from revenue increased by 79 per cent. from 1914 to 1921 as against a rise in prices of 90 per cent. in the same period, State expenditure from loan money was prodigal during the war.

The State debts increased from 317·6 millions sterling in 1914 to 458·5 millions in 1921, and the interest burden from 11·5 millions to 18·7 millions. There were many cogent reasons why the States should reduce their loan expenditure, but the State Governments did not apparently consider it politically expedient to reduce their public works even though the Commonwealth Government was frequently on the market for large sums for war purposes. This is perhaps inevitable in the existing financial arrangements between State and Federal authority in the Commonwealth. Nevertheless the actions of the States certainly aggravated the boom.

But it is in Commonwealth finance that the most pronounced increases occurred and the heavy spending of loan money most evident. Expenditure from revenue increased from £16,878,328 in 1913–14 to a maximum of £65,106,949 in 1921–2. Of the latter figure £31,337,164 represented expenditure incurred through the war, interest on debt, pensions, repatriation. The Commonwealth debt at July 1, 1923, was £410,996,316, of which £362,692,574 represents war debt, and the remainder loans raised for public works.[1] Elsewhere I have shown that the war was financed mainly by loans, taxation being used merely to meet the annual debt charges, pensions, etc. as they were incurred.[2] As a result a heavy annual "war" charge persists long after the cessation of war activities. In 1922–3 these war charges amounted to 47 per cent. of total expenditure. Taking the whole period up to June 20, 1924 (figures for 1923–4 are the Treasurer's estimates), the total war expenditure exclusive of War Gratuities will be £543,462,487, of which £193,879,513 only is to be met from revenue. Even after the Armistice there were heavy borrowings for war purposes, such as repatriation and soldier settlement. These amounted to £131,727,977 for the years 1918–19 to 1920–21. In the following two years an addition of £9,339,671 was made, and the year 1923–4 will witness a further addition of £7,105,750 on this account. Naturally the expenditure of these loans stimulated the demand for many commodities which were ordinarily purchased out of the incomes of the people. In so far as they did this they increased the production of "consumption" goods and diverted energy into relatively unproductive channels. Part of this expenditure was upon repatriation, war service homes, soldier settlement, etc., and will be to a large

[1] *Budget Papers*, 1923–4, p. 123.

[2] ECONOMIC JOURNAL, December 1921, pp. 492–4.

extent reproductive.[1] But coming in the boom period its immediate effect was to promote further prosperity and stimulate constructional work.

At this point a note on the total public debts of the Commonwealth may be of interest. As pointed out above, the States continued borrowing for public works despite the enormous demands of the war and repatriation. The State Public Debts increased from £392,540,000 at June 30, 1918, to £506,880,626 at June 30, 1922. This gives a total debt, Commonwealth and State, of roughly £920,000,000 at June 30, 1922, and the rate of borrowing does not show any signs of diminishing. According to the official estimates of the Commonwealth Treasury the amount to be borrowed by the several authorities in the present year (1923–4) is £45,000,000, and "it appears that the total requirements for the next three years will be approximately the same as for the year 1923–4."[2] How far this rate of borrowing may be sustained is doubtful, but the following comparison of the debts of the State and production is of interest.

TABLE I

State Debts and Production (£1000)

	Debts.	Index Nos.	Interest.	Index Nos.	Index Nos. for Production.
1901	203,518	1000	7,455	1000	1000
1911	267,127	1322	9,534	1279	1646
1921	458,409	2253	19,984	2680	3436
1922	506,881	2491	23,097	3098	3025

It will be seen that State borrowing was not in excess of production in this period, but if the interest burden for the Commonwealth be added it shows an enormous increase over production. This would make total interest for 1922 over £45,000,000 and nearly double the index-number. Of course

[1] It is difficult to ascertain the exact amount spent on what may be called reproductive work, but the Commonwealth *Year Book* gives statistics for expenditure (presumably from loans) up to June 30, 1922, on soldier settlement, repatriation and war service homes amounting to nearly £50,000,000 (*Year Book*, No. 15, p. 934).

[2] *Report of the Conference of Commonwealth and State Ministers*, May–June, 1923, p. 43. The figures of gross debt above exaggerate the position, inasmuch as £55,182,656 is included in both State and Commonwealth debts, being sums owing by the States to the Commonwealth, while the Commonwealth Sinking Fund amounts to £2,268,558 (1923), and that of the States to £14,462,608 (1922). Unfortunately the debt for the States at June 30 last is not available at the time of writing.

the effects of war finance are observable in this figure, but it should suggest the exercise of caution in regard to future borrowing.

II. Causes of the Boom

Government expenditure, however, was not the real cause of the boom. Its influence was felt only after the boom developed, but in its later stage it was a contributory factor of serious importance. I may set out the following as the main causes of the great prosperity in business in 1919:

1. The great increase in the price of exported goods following upon the rise of prices in Europe and America.
2. The great demand for war materials at home, coupled with the prospect of diminished supply, which increased home prices.
3. The prohibition of the export of gold and the use of notes as a basis for the currency, which, together with the Government's policy of war finance, inflated the local currency.
4. The relatively low rate of interest, and the expansion of bank credits, facilitated thereby, and by (3) above.
5. The natural psychological factors.
6. The development of secondary industries, and construction of works for them, stimulated by (*a*) the natural protection afforded by the war, and (*b*) the tariff of 1920.
7. The expenditure of loan-money by Governments.

Of these factors the first and second were of general application and the third, fourth and seventh are well established.[1] With regard to the rate of interest, banking policy in Australia, as elsewhere, was defective. It was not until July 1920 that any action was taken by the Australian banks to use their power to check the unhealthy trade activity. Then an advance in deposit and lending rates of ½ per cent. was announced by the joint stock banks of Sydney, Melbourne and Adelaide.[2] This advance was in keeping with the action taken a little earlier in the United Kingdom and U.S.A., but it was too long delayed and was anticipated in Australia "by advances in the rates offered for

[1] The process of inflation which caused the rise in Australian prices I have described in the Joseph Fisher Lecture (University of Adelaide) for 1921, pp. 9–10. The expansion of bank deposits up to the end of 1919 has been described in the Economic Journal, December 1920, pp. 496–9.

[2] *Banking and Insurance Record*, July 1920, p. 361.

Government borrowings on the local money market, and by increases in the rates allowed by various Savings Banks." With respect to "business psychology," little attention has been given to this factor in public statements upon the present condition of industry in Australia. Indeed the theory of the business cycle generally has scarcely been mentioned. But a recent writer points out: "the main causes of our present condition are to be found, not in the outstanding events of the past seven years, but in the more normal operation of the influences which produce business cycles." [1] It is not enough to say that the abnormal events of the war and post-war periods are responsible for the bad times we entered upon in the middle of 1921. The general effect of these events was to impoverish us, but for many years there was a great outward show of increasing wealth. The underlying effects were discernible only to those who examined the situation closely and impartially. This may be demonstrated by reference to recorded production.

TABLE II

Production in Australia

Year	Recorded Production (Thousands)	Index-number of Wholesale Prices.	Index of Real Production.
	£		
1913	218,103	1088	1000
1914	209,495	1149	908
1915	251,620	1604	785
1916	270,411	1504	899
1917	283,629	1662	858
1918	298,669	1934	775
1919–20	348,183	2262	771
1920–21	402,208	2911	917
1921–22	346,662	1830	986

This table shows conclusively how artificial was the prosperity of recent years.[2] But the high money values and the enormous expenditure of loan money created conditions indicative of increasing wealth, and the growing money profits from business imparted confidence to the commercial community. Here we have all the real weaknesses of the boom that heralds a crisis. They were intensified in Australia on this occasion, for production was actually declining; but thanks to the artificial financial

[1] Lavington: *The Trade Cycle*, p. 11.

[2] If the production per head of the population be considered the decline is even more pronounced. Mr. E. C. Dyason has pointed this out (see the Monthly Letter of E. C. Dyason & Co. for February, 1922).

conditions there continued an almost universal belief in uninterrupted prosperity. Up to June 1920 trade journals were very optimistic and recorded very active business conditions without warning of troubles ahead. Thus Messrs. Mullen and Co. of Sydney, writing in the *Banking and Insurance Record* for February 1920, remark that "the investment market has continued to show a surprising amount of strength and vitality," [1] while the *Sydney Daily Telegraph*, in reviewing the situation for the years 1919 and 1920, declared, "one may search through the official figures and nowhere find an industry that has died away or is even languishing. . . . The future is very bright indeed."

The sixth cause of the boom can in the present state of economic investigation be only roughly estimated. The exact influence of the war on secondary production and the effect of the highly protective tariff of 1920 require close examination. It is natural to suppose that the latter would give a temporary and artificial stimulus to manufactures, and coming at the height of the boom period would exercise an important influence. This is not the place to criticise the general tariff policy of Australia, but the great increases in duties imposed in 1920, coming after a long period of natural protection, did no doubt encourage the expansion of establishments and the investment of capital in factories. It would be difficult to find an exact statistical measure of this, but a close examination of investment and balance sheets of leading manufacturing companies would afford some guidance. On the other hand, the importance of secondary production in Australia is generally over-estimated. In reality it supplies on the average less than 30 per cent. of total production and is concerned mainly with the domestic market. Its prosperity is in the long run dependent upon the primary industries.

III. The Critical Period

Early in 1920 prices in England and America began to break, and a process of deflation followed. The peak of wholesale prices in Australia was not reached until August 1920, when the index-number stood at 2692 as compared with 2311 in the previous January. The graph published by the Commonwealth Bureau of Census and Statistics portrays a very persistent rise from March 1919, when the index was about 1940, until August 1920,[2] when the peak was reached. The rise in this period was nearly 40 per cent. and indicates a state of feverish trade activity.

[1] *Banking and Insurance Record*, 1920, p. 80.

[2] *Labour and Industrial Branch Report*, No. 12.

But the prices of some commodities commenced to fall before August. This was most pronounced in the jute and leather group, and in agricultural produce and the groceries group. As early as May this tendency had been noted. Thus the *Banking and Insurance Record* remarked: "During the last few weeks there have been plain indications that the rise in prices . . . has reached its limit, and that a reaction has begun to set in; the markets for wool and certain other raw materials as well as some of the leading industrial metals now presenting a different aspect from that of a few months ago." [1]

The drop in wholesale prices from August 1920 was as sudden as the increase in the previous period. From 2692 the index-number fell to 2245 in December, to 1845 in the following June, and to 1684 in December 1921. This represents a fall of 38 per cent. in sixteen months. This was a feature of the price level in all countries during the crisis. Prices had reached a level altogether out of keeping with the real production and purchasing power of the community, and a serious fall was inevitable. The movement in retail prices during the period from March 1919 to August 1920 was almost as great (39 per cent.) as that in wholesale prices, though previously the latter had shown a much greater increase. But the fall of 25 per cent. was much less than the fall in wholesale prices, and when rents are added to retail prices to give an index of the cost of living this tendency is greatly accentuated. There being no legal restriction on the increase in house rents in this country, rents were rising during the whole period. Consequently the cost of living fell less than 16 per cent., and for some months after August 1920 the fall was very slight indeed. This discrepancy between movements in the cost of living and wholesale and retail prices constituted one of the greatest disturbing factors in the early months of the crisis.

During this process of deflation difficulties of another kind arose. For each of the years 1917–20 there had been an excess of exports over imports, and for the year ending June 30, 1920, this excess reached the record figure of over 50 millions. But for the following year there was a decrease of exports of over 15 millions and a very heavy increase in imports of 65 millions. This brought about an excess of imports of over 30 millions, and caused great difficulties in financing imports at a time when the banks were deliberately restricting their advances for home trade. The following table shows how this factor became of increasing importance towards the end of 1920.

[1] May 1920, p. 203.

Table III

Australian Imports and Exports

	Imports.		Exports.	
	1919–20	1920–21	1919–20	1920–21
	£	£	£	£
July–Sept.	19,431,000	41,812,000	34,490,000	28,171,000
Oct.–Dec.	19,034,000	46,083,000	37,291,000	33,650,000
Jan.–March	24,733,000	43,659,000	40,583,000	34,777,000
April–June	35,394,000	31,827,000	37,149,000	34,921,000

Note.—Imports reached a maximum in February 1921, when they stood at 18·8 millions in comparison with 7·0 millions for the previous February.

The Commonwealth statistician estimates that there was a net excess of imports (after allowing for loans) of over 27 millions, whereas the liabilities by way of interest, etc. amounted to 22 millions. "Consequently the value of the exports for the year was about £50,000,000 short of the amount required to pay for the imports and to meet the standing obligations on account of interest, etc." [1] Exchange on London was very difficult and demand drafts rose to 37/6 per cent. No doubt business was done at a much higher figure, but this is much the highest official quotation since 1900.

If we turn to banking statistics we find further evidence of the ills that afflicted the business community at the end of 1920. The following table is of interest on this point.

Table IV

Bank Deposits, 1914–22

Quarter ended June 30.	Deposits.		Total.	Coin, Bullion and Aust. Notes.	Percentage of Reserve.	
	Not Bearing Interest.	Bearing Interest.			IV. to I.	IV. to III.
	I.	II.	III.	IV.	V.	VI.
	£	£	£	£		
1914	70,195	89,014	159,209	41,447	58	26
1919	118,989	112,281	231,270	57,894	49	25
1920	133,913	113,734	247,647	56,940	42	23
1921	127,789	120,442	248,231	56,120	44	23
1922	123,819	126,669	250,488	52,217	42	21
1923 (March 30)	124,323	135,312	259,635	51,142	41	20

We notice here a tendency for "current" deposits to expand, more particularly in 1920, when there was an increase of 13·2 per

[1] *Commonwealth Year Book,* No. 14, p. 497.

cent. This is evidence of the degree to which banks were offering accommodation. At the same time "fixed" deposits were almost stagnant, while reserves increased by only 2·7 per cent. Consequently the proportion of reserve to current deposits decreased to 42 per cent. and the proportion to total deposits to 23 per cent. The former figure is lower than any calculation I have made up to that date. Before the war it was never below 52 per cent., and no doubt this fact greatly influenced bankers in the action they took in July 1920, when they raised their deposit and loan rates, and later also when they commenced to discriminate very carefully in making advances, and brought compulsion upon their clients to reduce their overdrafts.

The years 1922 and 1923 show a further drop in reserves. This is due largely to the trade recovery that is proceeding and the contemporaneous attempt on the part of the Australian Notes Board to reduce the note issue. This has been reduced from nearly £58,000,000 in 1921 to £52,000,000 at June 30, 1923, but the amount in the hands of the public has decreased by less than one million. Bankers have found their reserves falling at a time when they were forced to give customers accommodation.

IV. Causes of the Economic Crisis

Following this brief analysis of the period of deflation we may now give the main causes of the depression :

(i) The deflation in England and America and the heavy fall in domestic prices in Australia.
(ii) The over-issue of credit beyond the limits allowed by reserves.
(iii) The stringency of the money market, the rise in the rate of interest, and the action of the banks in respect of credits.
(iv) The drop in the prices of metals causing great difficulty to mining companies.
(v) The heavy fall in prices of agricultural products and meat, and later of dairy products.
(vi) The bad harvest of 1919–20.
(vii) Heavy importations due largely to the supplying of orders long overdue.
(viii) The difficulties of regulating industrial costs to the changing price level.
(ix) The decrease in production from 1914 to 1921.
(x) The psychological reaction from the boom period.

Some of these factors have already been discussed in Section IV. Others require further mention. The harvest of 1919–20 was very poor, the wheat yield being only 46 millions of bushels. The previous yield was only 75 millions in contrast with 115 millions in 1917–18 and 146 in 1920–21. Further, the prices of agricultural products fell 40 per cent. from June 1920 to June 1921, and consequently the rural community found its purchasing power very much reduced. It would be interesting to compare the purchasing power of the farmer and the manufacturer in 1919 and 1921. The farmer's products in 1921 brought him about 50 per cent. less purchasing power than they did two years before. The position may best be illustrated by reference to the relation between internal wholesale prices and export prices as under.

Table V

	Export Prices.					Internal Wholesale Prices. All Commodities.
	Agricultural.	Pastoral.	Dairying.	Mineral.	All Classes.	
1913	1000	1000	1000	1000	1000	1000
1920–21	2400	1576	2538	1628	1753	2014
1921–22	1582	1280	1333	1282	1333	1682

It will be noticed that even in the boom years of 1920–21 the price of exports as a whole showed a rise of only 75·3 per cent. over the 1913 level, while general internal wholesale prices rose 101·4 per cent. Two important groups of exports—agricultural and dairying—had risen much higher and producers benefited accordingly. But in the following year all groups were below the internal level and the export index showed a rise of 33·3 per cent. over 1913 compared with 68·2 per cent. for internal prices. This may be taken to indicate roughly the relation between costs and selling prices for export producers. Internal prices kept costs up, while the export market had collapsed. There is a recovery in the export market at present, but the index-number of export prices is not available.

The crisis was most noticeable in the mineral industry, where selling prices were only 28·2 per cent. above the 1913 level. This, of course, was due to the heavy fall in the world prices of base metals in 1920. The effect on mineral production may be shown as follows :

TABLE VI

Mineral Production

	Total Mineral Production. £1000	Mineral Production exclusive of coal. £1000
1917	24,998	19,402
1918	25,462	19,238
1919–20	18,982	12,221
1920–21	21,613	12,104
1921–22	19,977	8,962

This serious fall produced a crisis in the mining industry from which it is only now recovering. Some mines actually closed down, while others produced on a smaller scale, and there was a serious fall in exchange quotations of mining shares. Thus Broken Hill Proprietary stood at 66/6 on July 19, 1920, but on June 16, 1921, they had fallen to 39/6, and on October 17 were only 31/4. The quotations of Mount Lyell on the same dates were 24/–, 13/11 and 12/6 respectively.[1] With two large branches of industry, constituting over 70 per cent. of the national income, suffering from such a decrease in purchasing power a serious economic crisis was inevitable.

Hard hit by the slump in prices, our primary producers, along with the commercial and industrial world generally, had to meet a reverse at another point. By the end of 1920 bankers were pressing upon their customers the importance of retrenchment. Every endeavour was being made to restrict advances and reduce overdrafts. This naturally roused great opposition from the commercial community, but the view of the bankers was that the check given to advances was necessary for the purpose of "limiting the trading demand for accommodation in the future" and "facilitating the disposal of present stocks of goods without undue competition from later arrivals." Any tendency to increase orders had to be discouraged, for Australia, in common with the rest of the world, "was reaching the end of the false prosperity produced in the first instance by war activity, war prices, and war inflation supported by the stretching of credit, and continued in the second place by the demands of the reconstruction succeeding the war."[2]

The effect of these measures is to be seen in the movement in advances and deposits as shown in Table IV. For the banks

[1] Some Aspects of the crisis in the mining industry are described in the *Round Table* for December 1921, p. 174.

[2] *Banking and Insurance Record*, February 1921, p. 82.

in Australia inclusive of the Commonwealth Bank "current" deposits decreased from 133·9 millions in June 1920 to 127·8 in 1921, and to 123·8 in 1922, while "fixed" deposits increased from 113·7 millions in 1920 to 120·4 in 1921 and 126·1 in 1922. Meanwhile the ratio of reserves to current deposits increased from 42 per cent. in 1920 to 44 per cent. in 1921 and 45 per cent. in 1922. These statistics show that there was a considerable decline in banking activity, and clearing-house returns confirm this. In 1920 the clearing-houses of Sydney and Melbourne registered exchanges to the value of 1602 millions sterling, but in 1921 there was a decline to 1440 millions. From the records given in the *Banking and Insurance Record* the following striking contrast is available:

Bank Clearings in Melbourne

		1920 £	1921 £	1922 £
Four weeks	June–July	64,177,000	52,818,000	56,974,000
do.	Sept.–Oct.	62,390,000	48,422,000	46,134,000

This decline in clearings portrays not only the influence of banking policy, but also the decrease in business activity as a result of the depression.

Of the other causes noted above, the influence of psychological factors is obvious. Trade definitely slumped in the middle of 1921, and Stock Exchange journals record a period of relative inactivity. This may be observed from the quotations of securities. I have collected information upon Broken Hill Proprietary and Mount Lyell shares which show the following fluctuations:

TABLE VII

Share Quotations

	Broken Hill Proprietary (Shillings).	Mount Lyell (Shillings).
1920. Jan. 16.	56·25	26·00
July 19.	66·50	24·00
1921. Jan. 17.	44·25	15·75
April 15.	38·67	12·10
July 15.	43·37	15·20
Oct. 17.	31·37	12·50
1922. Jan. 16.	26·12	14·75
July 15.	26·75	17·25
1923. Jan. 16.	32·69	22·25
July 16.	27·04	24·00

Whilst many factors connected with production and prices in the industry affect the share quotations, they may be regarded

as a rough index of the degree to which enterprise deadened during the crisis. A decline commenced in August 1920 and was very persistent until October 1921. This was followed by a recovery, and Stock Exchange reported active investment by the beginning of 1922, which continued throughout the year and during the early months of 1923. Recent reviews show that investment has been checked and the volume of business is below the average.

Table II. gives an index of production for the Commonwealth, and it will be noted that the year 1919–20 was the lowest. But a general decline from 1913 is to be observed. Trade activity as measured for estimating the equation of exchange does not portray this decline in the same degree, and has been rising since 1918.[1] While production had decreased considerably and trade had fallen to a less extent, money in circulation and credit were increasing. In these circumstances and pending a recovery in trade a crisis was inevitable. It is usual in the pre-crisis period for production to fall away a little. Business management is less efficient, there is a tendency to extravagance, luxury trades flourish and a greater proportion of construction work miscarries. But in this instance there was this heavy and persistent decline in production which made the crisis of greater severity. In this sense inadequate production was a cause of our troubles in 1921, and increased output would have offered some escape. But a period of decreasing production is possible without any crisis, provided expenditure and other factors are adjusted to the new circumstances. It was one of the features of this boom period that expenditure increased while production decreased: nothing but "bad times" could be the outcome of such folly.

V. Difficulties in the Critical Period

When the crisis developed the usual difficulties arose: producers found their markets falling away, while costs of production remained stable; credit was difficult to obtain owing to the restrictive policy of the banks; labour was not prepared to countenance any fall in wages or change in working hours; the demands of the unemployed were insistent, and the burdens of taxation were by no means lighter because of the crisis. In Australia some of these difficulties were rather pronounced. Industrial costs, particularly wages, remained stable or even rose for many months after the drop in wholesale prices; labour was

[1] Article by the present writer on "Equation of Exchange" in *Banking and Insurance Record*, December 1922.

suspicious of any attempt to readjust costs to the new conditions, and Governments found it impossible to reduce their expenditure. The whole situation was further complicated by the difference between the purchasing power of the products of different industries, and especially by the fall in the prices of minerals and rural products. It was a common error to mistake these factors for the real causes of the crisis. They were results only, and arose through the inevitable delay in readjusting the varied elements of costs and expenditure to a new situation forced upon the economic system by the dramatic fall in wholesale prices. But they have led men to conclusions regarding the regulation of wages and industrial conditions, the functions of trade unionism and labour organisations, and the problems of public finance which might materially affect the future of industry and government. Of these problems, as in many others mentioned in this paper, it is possible to give only a meagre outline and to leave a more thorough treatment to those who are able to collect all the data.

For many years the cost of living had been accepted as the basis upon which wages were regulated. The process might well have been automatic, but the records of Arbitration Courts are replete with arguments and counter-arguments regarding the validity of index-numbers and the justice of adjusting wages to the cost of living. An enterprising student will some day review these arguments, and he will be struck with the comparative neglect of the basic factor which determines the rate of wages. On these grounds arbitration has been a costly experiment for Australia, but failure to apply a principle soundly should not, as many suppose, warrant the condemnation of that principle. The productivity of industry is the final source of wages, and arbitration cannot be successful if it ignores this factor. During the period of inflation the cost of living rose less than either wholesale or retail prices, and wages lagged behind.

In the critical years 1920–22 the movements in these factors were bewildering, as may be seen from the following comparison (Table VIII).

The position thus revealed has created a very difficult situation in Australia, and is to a large extent responsible for the reaction that has set in against arbitration. The erroneous impression that high wages caused the crisis is also due to it, and in general it is the most disturbing factor in the economic situation at the present moment. Of course the employers object to this most emphatically, but in some quarters the leaders of the workers

TABLE VIII

Movements in Wages, Cost of Living, etc.

(Plus sign indicates rise and minus fall.)

	1913–20	August 1920 to Dec. 1921.	January 1922 to June 1923
Wholesale prices	+123%	−38%	+16%
Retail prices	+ 92%	−25%	+12%
Rent	+ 19%	+ 6%	+ 7%
Cost of Living	+ 62%	−18%	+11%
Wages of adult males ...	+ 51%	+11%	− 2%

Note.—This table indicates the degree to which the Australian price level has responded to movements abroad. We are experiencing a steady recovery and prices are steadily on the up grade. It is interesting to observe how wages lag behind prices. Wages are now rising again, the number for June last being 1790 and that for March 1783.

objected equally strongly to the slow adjustment of wages by the Court during the time of rising prices. The practice of regulating wages according to the changes in the cost of living is in the main responsible for it. This has come to be regarded as the soundest basis upon which wages should be fixed, and in 1919, when the Prime Minister set up the Basic Wage Commission, he did not provide against the possible contingency that the wage decided upon might not be within the limits of the country's productivity. But as soon as the report was announced there was an outcry against the rates proposed, and the report was not adopted. By raising the question of production it was easy to create an impression against the high rates proposed.[1]

But a close examination of the problem was not made, and the adjustment of wages according to changes in the cost of living continued without serious opposition until the development of the crisis. Then a cry of general impoverishment was raised, and employers sought to obtain lower rates because wholesale prices had fallen. The Courts on the whole kept to the cost of living as a basis for fixing wages, though in some cases, for instance in the copper-mining industry, lower rates were fixed at once. It is mainly because of this that the adjustment of wages to changing prices has been so protracted. But it should not be overlooked that wages rose slowly during the period of inflation, and that real wages were lower during the whole period 1914–19 than they were in 1913. An examination of the table on p. 86 of the *Labour and Industrial Branch Report* (No. 13) and the graph on

[1] The Commission proposed a rate of £5 16*s*. per week at a time when the weekly wage for adult males was £4 9*s*. 10*d*.

p. 8 is interesting on this point and should prove disquieting alike to opponents and advocates of arbitration. The general result is that in years of rapidly rising prices wages lagged behind when the productivity of industry might have justified higher rates, but in the period of depression wages are relatively higher than before, and the readjustment is slow. This shows the rigidity of the arbitration system and the difficulties that arise through the regulation of industrial costs on so artificial a standard.[1]

These difficulties are increased by the attitude of labour. The standard of living plays a very important part in determining the rate of wages even under competition; in a system of regulation it is of greater importance, and its influence is most pronounced in a period of deflation. For it is the worker's conception of the standard that counts in this respect, and unfortunately his conception is largely a matter of money wages. Any reduction of wages appears to him as a blow at a standard of living that has been won only through close organisation and constant aggression. Hence any fall in wages is to be resisted at all costs. This was the attitude of the powerful unions during the crisis, and at the industrial conference convened by the Prime Minister in February 1922 the representatives of the employees stoutly resisted any attempt at a reduction. They argued that labour had not shared in the prosperous times, that real or effective wages had decreased during the war, and that labour was not a real partner in industry, and therefore could not be held responsible for the depression and should not be asked to make a sacrifice. Further, no reduction in wages should be asked for without a complete statement of the finances of industry. In this mood, especially as the employers resisted these claims,[2] difficulties were to be expected.

Another source of difficulty is to be found in the impossibility of any immediate reduction in Government expenditure and taxation. This is inevitable, for the costs of Government lag behind the price level. During the period of inflation Government expenditure was relatively less, but in the earlier months

[1] Professor Condliffe finds the same difficulty in New Zealand. See his review of the position of the Arbitration Court in New Zealand in the ECONOMIC JOURNAL, December 1921: "In the past it has if anything kept wages back; it would probably act as conservatively in a time of falling prices" (p. 554).

[2] "If it is expected that the cost of our business and other matters that are kept in confidence by the directors and the staff are, as it were, to be thrown to the lions to make a Roman holiday, you gentlemen are making a mistake, as we are going to do nothing of the sort."—Mr. H. V. McKay for the employers, *Report of the Industrial Conference*, 1922, p. 48.

of the process of deflation it increased both absolutely and relatively to the value of money. This may be seen as follows:

Taxation per Head

	Commonwealth Government.			State Government			Total.		
	£	s.	d.	£	s.	d.	£	s.	d
1920	7	17	9	2	14	0	10	11	9
1921	9	13	4	3	7	3	13	1	0
1922	9	0	4	3	4	9	12	5	1
1923	8	17	1	3	6	5	12	3	6

(Figures for 1923 subject to correction.)

Here we see a substantial increase in 1921 when the crisis was most severe. It is not till 1922 that a decline is noticed, and 1923 shows but a slight decrease. Elsewhere I have examined the problem with reference to Tasmania, and have shown that the "burden of taxation" was not seriously felt until the crisis developed.[1] This has led to some erroneous conclusions regarding the activities of Governments and the real cause of our present misfortunes. The principles of public finance in Australia have long been awaiting scientific review, but with the meagre information available it is quite certain that unsound finance was not the chief cause of the recent crisis, as many politicians would have us believe. The crisis, here as in many other matters, only served to reveal the real weaknesses of our financial and economic methods during the period of prosperity. Unless this lesson is learned this crisis will pass without any preparation for the next.

VI. Opinion and the Crisis: Problems for the Future

This analysis of the trade depression in Australia would doubtless be received with some impatience by the business and labour leaders of the Commonwealth as well as by the Governments. Despite our bold social experiments, concerning which there is probably an exaggerated view abroad, we pay little respect to economists. This is not surprising, for economics is only now receiving due recognition by our higher educational institutions. Indeed in one of our leading Universities the study is scarcely recognised. Until the Universities have developed a greater respect for the conclusions of pure economics, and our economists have provided data for the study of our leading problems, we cannot expect political and industrial leaders to be

[1] "The Public Finances of Tasmania," published by the *Mercury*, Hobart.

greatly influenced by the principles of economics. It is not that theories are wanting: our devotion to what may be called "social economics" and our attempts to raise the standard of living provide evidence to the contrary. But we have frequently started at the wrong end, and entered upon a course of action only to find some fundamental economic obstacle across our path. This attitude with respect to recent economic depression was very pronounced in the discussions at the Industrial Conference called by the Prime Minister in February 1922. The conference was abortive, but it affords a convenient means of gauging the attitude of employer and employed to the problems of the crisis.

Mr. Hughes recognised at the outset that the purpose of the conference was to consider "those incidental phenomena that arise out of the eternal economic question which affects all countries."[1] But the subsequent deliberations showed little real knowledge of "the eternal economic question," and a great many popular explanations of the trouble were put forward. Thus the employers declared that costs of production must be reduced if industry was to proceed—in particular a reduction of wages was necessary. It was further stated by their representatives that the community had been living beyond its income for many years and that production had decreased. This was due to shorter hours of labour and general inefficiency. The existing unemployment and depression were the result of high and rising costs accompanying a falling market. In these circumstances profits were impossible and losses inevitable. This would lead to closing down of plants and might indeed seriously retard industrial development in Australia. Other factors mentioned were the large public debts of Australia, the condition of public finance generally, the growth of extravagant expenditure, the burden of taxation, and generally the wreckage of the war. Now these are doubtless all elements in the problem, but one important fact stands out in this analysis. It is the employer's point of view based upon the factors in the situation which are within his own experience and most immediately affect him. To stress these facts is doubtless useful, but to suppose that the experience of the employer is sufficient equipment for analysing so complex a problem is surely unwarranted. That industry cannot continue for long with rising costs and falling prices is obvious, but it is only a symptom of the crisis and a problem for the public accountant. The employers' section, while purporting to offer

[1] *Report of Conference*, p. 2.

causes, offered only effects. These effects were causes in their turn, but there was a failure to get at the foundations. Why did not these conditions obtain in 1917 or immediately after the war?

On their part the representatives of the employed declared that balance sheets still showed that companies were making high profits, output was being deliberately restricted, high interest rates were crippling industry, an attempt was being made to reduce wages and lengthen the hours of labour and thus to lower the standard of living. They pointed to the very favourable times that employers had during rising prices, that no preparation had been made for the bad times and that it was unfair that the workers should suffer. Further, and here they rather vitiated their case by begging the particular question, they claimed that the evil was inherent in "capitalist economy" based upon private gain, and that as long as this lasted there would be frequent depressions. In good times there was over-production, but the purchasing power of the workers did not increase, so that goods could not be sold owing to the failure of an equivalent demand. Here again the analysis is mainly individualist. The prime factor is the careful watch over the standard of living and the attempt to place the whole of the blame upon management or the general economic system.

The situation was well summed up by a delegate of the employees who declared: "Each side seems to have its armour on."[1] This was even more in evidence in the remedies put forward. With the exception of measures for unemployment, which were quite inadequate, the proposals had very little reference to the situation at the moment.[2] But this is characteristic of the discussion upon the problems connected with the economic depression through which Australia has been passing during the last eighteen months. No problem requires closer economic investigation, and yet a sound economic analysis has not been presented, still less taken to heart, either by the political or industrial leaders, or by the masses of the people.

It will be for the economists to make such an analysis to provide data for the reliable estimate of business conditions. Efforts being made elsewhere will stimulate some attempt in Australia, but the immediate requirement is a thorough quantitative analysis of the main features of our business and financial organisation. Among other factors that require immediate attention in this respect are:

[1] *Report*, p. 59.
[2] *Report*, pp. 66–7.

(i) The compilation of an index of production showing relations particularly of consumption and instrumental goods;

(ii) An analysis of the relations of wholesale and retail prices and the cost of living;

(iii) An exposition of the banking system of the Commonwealth and the principles upon which credit is controlled;

(iv) An exposition of the financing of imports and exports and the principles upon which foreign exchange rates are based;

(v) A description of the investment market and the movements in stock and share quotations; and

(vi) An analysis of the relative importance of domestic and foreign trade and the influence of the outside market.

Until these problems have been thoroughly canvassed by the economist it is futile to speak of controlling business cycles in Australia or greatly influencing the legislation generally. The immediate requirement is the formulation of a definite scheme of economic research.

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University of Tasmania,
September 1923.

LIMITATION OF CURRENCY OR LIMITATION OF CREDIT?

SEVEN or eight years ago, though military events then seemed incomparably more important than economic policy, I began to be apprehensive about the future of the pound sterling. Professor Shield Nicholson was, I think, the only economist who had at that time expressed any alarm; the provisions of D.O.R.A. were not favourable to criticism of the currency—her threat of fine and imprisonment might be treated lightly, but her suggestion that such conduct would assist the enemy was decidedly deterrent. From the dark days of the spring of 1918 I have devoted the best of my energies to inculcating the doctrine that due limitation of the amount of a currency is necessary for the maintenance of its purchasing power. If I could have foreseen only a tenth of the ruin that neglect of that doctrine was about to bring upon the civilised world in the next six years, I would have given up other avocations in order to give more time to the endeavour to convince unbelieving mankind of its truth.

It is consequently somewhat disconcerting to be told by the best-known English monetary theorist [1] that the doctrine of limitation of currency is obsolete, and has been replaced by the doctrine that due limitation of credit is what is necessary, and if that is present, currency will somehow manage to be of the right magnitude. For this is what Mr. Keynes says on p. 184:

"Thus the tendency of to-day—rightly, I think—is to watch and to control the creation of credit and to let the creation of currency follow suit, rather than, as formerly, to watch and to control the creation of currency and to let the creation of credit follow suit."

The passage follows a paragraph in which the Cunliffe limit on Currency Notes is treated with somewhat supercilious contempt, as springing "from a doctrine now out of date and out of accordance with most responsible opinion."

The champion is doughty, but comparison of the state of currencies before the war, when they were limited by the necessity

[1] *A Tract on Monetary Reform*, by John Maynard Keynes (Macmillan & Co., London, 1923. Pp. vi + 209).

of being kept equal to gold, with their state afterwards when that limit has been removed, encourages me to take up the gauntlet which he has thrown down. I hold that while the control of prices by controlling currency and letting credit follow suit is perfectly real and effectual, the control of prices by controlling credit and letting currency follow suit is altogether chimerical.

Some time before the war, in the old and lamented evening *Westminster Gazette*, Professor Pigou threw what seemed, at any rate to me in my ignorance, new light on the determination of the value or purchasing power of money, by pointing out that it is not the mere existence of an increased quantity of currency which diminishes the value or purchasing power of a unit of that currency, but the spending, or, more exactly, the expectation of the spending, of the additional money.

The importance of the proposition in the widest realm of theory is that it brings currency into line with all other commodities: the "quantity theory," instead of being something special to currency, is seen to be merely what is generally true, that if more of a thing is to be sold, *ceteris paribus*, its value will fall. Knowledge of the fact that the harvest is plentiful, that many houses are being built, and that much coal is being raised to the surface tends to cheapen wheat, houses, and coal: knowledge that the Government or the State bank is going to offer large quantities of additional legal-tender inconvertible notes in exchange for goods and services tends to cheapen that currency, and knowledge that gold is being brought to the surface in large quantities tends to cheapen a currency composed of gold and paper convertible into gold, provided, of course, that the Mint is open to the new gold.

In practical life recognition of the truth of the proposition is of enormous importance, because it explains the fact that private persons and the banks in which private persons pool their immediate resources can and do raise or lower the value of a currency of a given magnitude by trying to increase or diminish their holdings, and can and do by actual alteration in their holdings nullify or partially counterbalance or aggravate the effect which increase or decrease of the total of currency would otherwise have. If, the total being fixed, each holder or most holders try to reduce their holdings by buying things, prices will rise, and if they try to increase their holdings, prices will fall. The attempt will not last very long. But when the total currency is being altered, their action becomes more important, because it constantly tends

to make people disbelieve in the working of the quantity theory, and induces them to deny that the issue of more and more currency is having its effect. They see no exact correspondence between the issue and the depreciation, and find that the depreciation generally precedes the issue in point of time. Then, forgetting that the correspondence between the greater plentifulness of a commodity and its depreciation never is exact, and that the value of a commodity which has become more plentiful necessarily falls before rather than after it is all sold, they declare roundly that "the issue of notes has nothing to do with their depreciation." The majority of experts did so in every European country, belligerent and neutral alike, during the war, and in many countries they do so still. Even in Germany the late President of the Reichsbank is said to have believed it to the day of his death, when the paper mark had sunk to near a billionth of the value of a gold mark.

He could not have thought so, if he had borne in mind that the issue of trillions of paper marks had meant the expenditure of trillions of marks in the purchase of commodities and services; and we shall all be spared many similar delusions if we continually ask ourselves, "How does this affect the spending of money?"

With this preface let us look more narrowly at this matter of control. Let any reader ask himself what he would do if the State were foolish enough to give him power to print and spend or lend as many Currency Notes, "legal tender for any amount," as he pleased. He would begin with small amounts, distrustful at first of his new and amazing power. Finding the thing work, he would issue more, and trade would boom. Then he would find every possible reason, good and bad, for saying that it was not his action that was raising prices. "There is," he would say, "a revival of trade (shown to be due by the relation between wholesale and retail prices), and it is caused by the good industrial policy which the newspapers which I subsidise have advocated. This is causing a legitimate demand for currency, and my issue is only just satisfying it. I am not *forcing* my currency on anyone. People accept it gladly when I buy from them, and the demand by borrowers is so enormous that my fifteen printing works can scarcely turn out enough notes. Surely you would not have me penalise industry and damp down the revival by charging six per cent.? What have you to complain of?" In this case I think everyone will agree that control could best be exercised by taking away our reader's power to create currency rather than by watching and controlling his creation of credit.

So far as I know, no such power has ever been given to a private individual. It was, however, in one famous historical case given to a body of private persons, the Governor and Company of the Bank of England, during the Napoleonic struggle, and I daresay that it has been given to similar corporations in various countries since 1914, but information on such subjects is curiously deficient. The Bank of England acted just as we have supposed the individual would act, except that it moved more slowly, and, being a corporation which never dies, it had more regard for the future, and was therefore kept in check to a great extent by the probability that it would be asked in a few years to redeem its notes in gold. There is no reason to suppose that any corporation of shareholders working for profit would act differently. It is sometimes thought that a bank is in a fundamentally different position from an individual, inasmuch as it is the business of the bank to lend, and it is supposed to be less tempting to print notes to lend than to print them to spend. This is clearly wrong if the interest of the fleeting shareholders is thought of. The shareholder can expend his dividends on buying land, houses, and other property, so that if he gets great amounts now he need not fear a lean future. But there is some force in the notion, all the same. The bank as a corporation, if it confines itself entirely or principally to monetary obligations, will have an interest in not depreciating these obligations, and so, if its managers, working for the institution rather than the shareholders, are enlightened and able to disregard the shareholders, they will not create enough currency to depreciate it. They will refuse to lend at a rate low enough to take out more and more notes, and perhaps somebody may like to call this "control of the creation of credit," though it is more natural to call it control of the creation of currency.

But the probability is that in very few countries these managers would be enlightened and firm enough. Elsewhere they would yield to pressure, and notes would gradually leak out. The obvious way for the community to stop the rot would be to take away the bank's power of creating inexpensive legal tender. But this again would be controlling the creation of currency rather than the creation of credit.

Very naturally, the grossest cases of depreciation of currency have occurred where Governments have reserved to themselves such gains as were to be got by it, either by manufacturing the inexpensive legal tender themselves, or by giving the power to a State bank which is bound by some arrangement to hand over

the profits of the issue. The second is the commonest method and also at present the most prominent, as it was adopted by Germany. Under it, being able to borrow from the State bank without paying any interest (since, if it does nominally pay, it recovers the amount immediately), the Government does so borrow. The bank must issue more notes to satisfy this demand for money, the notes depreciate, so that the Government has to borrow more, and still more, and more and more as the depreciation increases at a more and more rapid rate. The well-disposed foreigner, looking on from afar, adjures the Government to "balance its budget," meaning not what is conveyed by the words in their strict sense, but merely "make ends meet without resorting to this fictitious borrowing, which is only in reality the printing of notes." The Government says plaintively that it cannot, because the depreciation is so rapid that taxes cannot be made to keep up with it, though expenses rise faster, and nobody will help with a loan. Sooner or later, however, the situation becomes understood, even if only dimly, by the people of the country itself, and then the Government is obliged to accomplish the absolutely impossible and "stop the printing press." Once more the creation of currency is controlled, and the "creation of credit follows suit." I scarcely think anyone will allege that what was wanted in Germany was control of credit: obviously the real need was for control of currency. Could the German Government have been stopped from borrowing by interest of 1000 per cent. per day, so long as that interest was immediately recoverable from the bank?

No reader of Mr. Keynes' book will have any difficulty in seeing the beam in Germany's eye: we all recommended her to pluck it out. But it is much more difficult, apparently, for us to see the comparative mote in our own eye, and I doubt if one reader in a thousand of those who will receive Mr. Keynes' gospel gladly will realise that what is sauce for the goose is sauce for the gander, so that "balance your budget" is as good a maxim in London as it is in Berlin.

Yet no fact of elementary arithmetic is more certain than that when more Currency notes are issued than are cancelled, the British Government's capacity to dispense with taxes and borrowing at interest in the ordinary way is increased, and when more are cancelled than are issued, its capacity to dispense with taxes and borrowing is diminished. The fact is concealed from the public by the existence of the peculiar bank of issue set up under the Currency and Bank Notes Act, 1914, called the "Currency

Note Account." At the beginning of the war, confronted with want of an emergency currency, the State might have permitted the existing Issue Department of the Bank of England to issue small notes and increase its fiduciary issue beyond the limit allowed by the Bank Charter Act. Instead of that, and without in the least foreseeing the enormous consequences, it empowered the Treasury to issue £1 and 10*s.* notes and to issue them *ad libitum.* Whatever the Act may have intended, the Currency Note Account became a "Government Department" under the Treasury, though located at the Bank of England, and issues notes to the Bank of England alone in exchange for coin, Bank of England notes, and simple credit in the books of the Bank. The coin and bank notes it keeps in reserve "against" the issue, and the credit it draws out and "invests in Government securities," which in practice means Treasury Bills and "Government Department Ways and Means Advances." [1] That is, the issue has made the Government able to dispense with taxes and loans and all other receipts to the extent of the whole issue minus the part covered by coin and bank notes. To that extent the United Kingdom has not "balanced its budget" in the sense in which that phrase is used in regard to Germany and other countries.

The fact is little recognised because successive Chancellors of the Exchequer have resolutely refused to let the amount appear in the national accounts, as it would do if the Treasury Bills held by the Currency Note Account were shown separately from those held by banks and others, and if the Ways and Means Advances obtained from the Account were separated from those obtained from the Savings Bank and other "Government Departments." It is further obscured by the fact that the Bank of England refuses to hold any reserve of Currency Notes. It receives them from its customers, and pays them out to anyone who has a right to ask it for "pounds sterling" and does not

[1] Mr. Keynes seems to have forgotten this when he writes on p. 181: "A change in the amount of what the Treasury borrows from the Currency Note Reserve is reflected by a corresponding change in the opposite sense in what it borrows in Ways and Means Advances or in Treasury Bills." Apparently this should read: "A change in the amount of what the Treasury borrows from the Currency Note Account is reflected by a corresponding change in the opposite sense in what it borrows in Ways and Means Advances and Treasury Bills not advanced by or taken up by the Currency Note Account itself." But even then it would be quite incorrect: it implies that all the money raised by issuing notes is necessarily utilised to pay off other floating debt, which is palpably not the case; there is nothing to show that the fact that £230,000,000 have been raised by the Currency Note issue has caused the other floating debt to be that much less than it would otherwise have been.

want Bank of England notes, but it alone of all the banks in the country keeps no store or reserve of the principal currency used by the inhabitants. When a Currency Note is paid in over the counter, it is promptly carried to the Currency Note Account Department, and paid in there. Then the balance held by that fictitious person (in reality the Government itself) is debited by the amount of the note. Conversely, when a customer or other person who has a right to demand pounds from the Bank asks for Currency Notes, they are fetched from the department, and the Account's balance is credited with the amount. So each Wednesday when the Bank Return is published, never a Currency Note is to be seen in it, though half-a-dozen millions may have passed in and out of the Bank in the week. The result of this practice is that seasonal and other fluctuations in the amount of currency which the other banks and the public find it convenient to keep in their tills and pockets are no longer, as they were in pre-war times, made very obvious by reciprocal fluctuations in the Bank's reserve. They appear instead in corresponding fluctuations in the amount of Currency Notes outstanding. At the beginning of the summer holidays, for instance, large numbers of people are known by their banks to be about to want to hold unusually large pocketfuls of cash because they will have to pay for railway tickets and other things for which cheques are not taken. To meet their demands, their banks draw on their own balances at the Bank of England, taking out sufficient cash for the purpose. Before the war this action pulled on the Bank of England's gold: now it pulls on the Currency Note issue, and increases the amount of that issue outstanding. Hence superficial observers are very naturally led to believe that notes are issued and cancelled as required by "the legitimate demands of the public," and to overlook altogether the much more important continuous pull outward or inward exerted all the time by Treasury policy.

Down to 1920 this pull was outward, but in December 1919 the Treasury, by the adoption of the Cunliffe limit, undertook not to increase the fiduciary issue beyond its amount at that time, and the outward pull disappeared in the fiscal year 1920–1. In the next two fiscal years there was a strong pull inwards, but this seems to have ceased with the beginning of 1923–4.

There is no mystery whatever about the nature and working of the Treasury pull. The complications of the Currency Note Account only cover its nakedness with a very transparent veil. If the agent of some spending department of the Government

arrived at the Bank of England to-morrow with a properly drawn cheque for forty-five millions and asked to have it in pound notes, the Cunliffe limit would present an obstacle. But if that limit were out of the way, the Bank would find no financial difficulty in handing out the notes as soon as they could be printed. Let us then suppose that the Government agent gives the notes away as Easter eggs to every man, woman and child in the country, or that he buys all sorts of things for the Government, or pays for services rendered to the Government. Prices will obviously be raised by the expenditure of this additional money, or rather by the expectation of it, as soon as the fact that it is going to take place becomes known: prices being higher, the stocks of money which people require to keep for convenience will be higher, and so the notes once issued will remain out—they will *not* be paid back by the recipients into their banks and by those banks into the Bank of England.

Of course in real life the Government does not send its agents with cheques to draw notes over the counter from the Bank. But the effects are just the same if it pays the cheques away to all sorts of persons up and down the country, who thereupon pay these cheques into their own accounts with their own banks and subsequently draw out and spend the money. The fact that it is known that the Government is going to spend forty-five million pounds more without making anyone else spend forty-five million (or any) pounds less inevitably raises prices and pulls out and keeps out the extra currency.

Conversely of the inward pull. If the Government were to put on a special tax or raise a special loan for the purpose of redeeming Currency Notes, while otherwise "balancing its budget," anyone can see that the notes could easily be got and put in the fire, and that prices would be lower because money-spending power [1] was taken away from the persons who paid the extra tax or subscribed the extra loan *without* being balanced by extra money-spending exercised by the Government. But exactly the same result follows when, without any special tax or loan being raised, the money raised by the Government (otherwise

[1] May I plead for the introduction of the term "money-spending power" in place of the usual "purchasing power"? "Purchasing power" should be used only in the sense in which it is measured by quantity of commodities purchasable. To use it also in a sense in which it is measured by the quantity of money spendable is confusing. It is, for example, very confusing to say that the purchasing power of the German people was increased when they had trillions of marks to buy with; to say that their mark-spending or money-spending power was increased is lucid enough.

than by issue of notes) does in fact exceed the expenditure (other than in redemption of notes). In the absence of a Government currency, excess of receipts over expenditure would simply mean to the Government, as it does to an individual, an increase of bank balance. As things are, it means notes received by the Bank, and (instead of being held to the credit of the Government) paid into the Currency Note Account and there cancelled.

The truth on this matter is confused by two doctrines which accept the idea that the Treasury can pull the notes in or out, but teach either (1) that the pull is only exercised by the balance of taxes over or under expenditure, or (2) that it is only exercised by the balance of taxes *plus* money raised by non-floating debt over or under expenditure. Both these doctrines are wrong.

(1) The first is wrong because the money-spending power of the people is diminished when the State borrows from them in order to spend the money borrowed in buying up and cancelling currency just as much as when it raises the same amount for the same purpose by taxes. It is true that when the State borrows, it promises to pay interest in the future, so that the individual lender feels himself better off than if the same amount had been taken from him in taxation; but the whole of the people taken together have no right to any such feeling, inasmuch as the future receipt of interest will be balanced, and a little more than balanced, by the additional taxation required to pay the interest and cost of collection. It is true that the amount borrowed will be more entirely derived from the savings of individuals than an equal amount derived from taxes, but this too makes no difference for the purpose in hand, since the investment of savings means money-expenditure just as much as does expenditure for consumption. The difference between consumption and investment is not that the one means more money spent than the other, but that investment means that the expenditure goes to additional equipment in machinery, houses, etc., and consumption does not. But if the State borrows money from its subjects to redeem and cancel currency, less money will be spent and prices will tend to fall.

(2) The second doctrine is almost obviously wrong, because there is no distinction between "floating" and other debt, except that the floating debt is renewable at earlier dates than the other, and is, in fact, constantly being repaid and renewed by fresh borrowing. "Floating" or not floating is only a question of degree, not of principle, and in fact the distinction in practice is perfectly arbitrary, traditional and unimportant. The debt

held at shortest notice and most frequently repaid and renewed is the very large amount of money owed by the State to the Savings Bank depositors, and this is seldom or never thought of as part of the floating debt at all. The only reasons ever given for making a distinction between the floating and non-floating debt for the purpose in hand seem to be two: (*a*) first, that possession of Treasury bills enables the holder, if he pleases, to ask for cash when the bill falls due, and (*b*) second, that the possession of Treasury bills enables the holders to "create credit," so that the people's money-spending power is increased when more Treasury bills are issued, and diminished when the amount of them is reduced.

(*a*) The first of these reasons is very easily disposed of. No doubt the banks could, if they chose, insist on having Currency Notes when their Treasury bills fall due, but in fact they don't, any more than the Savings Bank depositors with one accord go to the post offices and demand their deposits in cash all at once. Why should they, so long as the Treasury is willing to re-borrow at a rate which makes the new bills profitable for the banks to hold? And if the banks were suddenly seized with a desire to throw profit to the winds and wreck the State, would it be impossible for the Government to get the required notes without printing additional ones? After all, the amount of bills falling due at any one time is not so very large, and presumably about a quarter of them are not held by the banks but by the Government itself in the Currency Note Account and some more by other Government departments. With the assistance of the Bank of England and the individual loyal holders of balances in the other banks, the Government could quite easily beat off this incredible attack. Those who have imagination to conjure up such an attack should also be able to conceive defensive measures. The Government could announce an issue of 8 per cent. three-year Exchequer Bonds, the amount to be subscribed at once in Currency Notes only, handed over the counter at the Bank of England or sent by post: the list to remain open till the chairmen of the Big Five appeared on the steps of the Treasury dressed in white sheets and prepared to kiss the toe of the boot of the Financial Secretary. The list would soon be closed; for the banks are liable to pay their customers on demand at least ten times as much legal tender money as the Government and the Bank of England are liable to pay the banks at any one moment. Those who live in glass houses cannot afford to throw stones.

(*b*) The other reason is a little more difficult to deal with in

consequence of the wide prevalence of the very curious delusion that when a bank lends money on Treasury bills to the Government, this enables it to lend more money to other borrowers, so that the more money the Government borrows in that way, the more the banks can lend to their customers, with the result that these customers will spend more money, which will raise prices and draw out notes because the higher price-level requires a larger holding of notes by each individual and institution. Conversely, it is supposed that when the Government reduces the Treasury bills outstanding by paying some off without issuing an equal quantity of new ones, it cuts down the ability of the banks to lend to their customers, diminishes those customers' money-spending, lowers prices, and pulls notes into the Bank of England, which pays them in for cancellation.

It may seem quite incredible that anyone can really believe that when a Government borrows money from a person or body of persons (whether called a "bank" or not), that person or body is thereby rendered *more* able to lend money to other borrowers; and conversely, that when the Government repays what it has borrowed, the repaid creditor is rendered by the fact of repayment *less* able to lend to other borrowers. Yet that this has been believed in the very highest circle of British financiers, at any rate not very long ago, is nearly proved by the fact that Mr. Austen Chamberlain, when Chancellor of the Exchequer, with access to all the best advice, complained pathetically that the more he repaid the banks what they had lent during the war, the more they lent to their customers. He had evidently been told that if he repaid the banks they would be able to lend *less* in other directions, and had imagined it to be true.

To argue against such an absolutely groundless delusion is unnecessary, but it may perhaps be useful to explain that it arises out of the topsy-turvy conception of banking which has unfortunately become fashionable in recent years. In the older and juster view bankers appeared to be intermediaries or middlemen between lenders and borrowers: they re-lent what was lent to them, keeping some cash in hand on all ordinary occasions in order that they might be in no danger of not being able to meet any demand that their creditors might make on them (these creditors being mostly entitled to be paid on demand). In the modern view, popularised in this country by Mr. Hartley Withers, and adopted by Mr. Keynes (pp. 178–81), the large share of the whole valuable property of the community possessed by the holders of credit balances at the banks is completely ignored.

The bankers are thought of as having (by some means which is left in considerable obscurity) got hold of a certain amount of cash, and then, apparently because there is some magic in calling yourself a banker, being able to "create" eight or ten times as much "money" or "deposit-currency." According to this view Treasury bills somehow drop into the banks without being paid for, and consequently without reducing the banks' resources at all; and once there, as they are "cash at one remove," they enable the banks to "create more credit," and thereby increase the money-spending of the people and raise the level of prices and draw out notes. This, of course, is all moonshine: every practical banker knows that he is not a creator of credit or money or anything else but a person who facilitates the lending of resources by the people who have them to those who can use them.

The conclusion is that in this country as well as in all other countries, now and always, it is the issuer of inexpensive legal tender currency who has the control of its amount and consequently of its purchasing power; that here and now the Government is this issuer; and that it actually (though very likely without Chancellors of the Exchequer being aware of the fact) exercises its power of control by its policy with regard to total receipts and payments. If it raises from all sources except the issue of notes more than enough to pay all expenses (including repayment of debt), notes will be redeemed and the amount outstanding reduced. If it raises less than enough, additional notes will be issued and the amount outstanding increased. And by this control of currency the Treasury ultimately controls prices.

The importance of the Cunliffe limit, pooh-poohed by Mr. Keynes, depends entirely on the action of the Government in making ends meet. If it insisted on allowing expenses to exceed receipts, it would doubtless withdraw the Minute adopting the limit. If, on the other hand, it makes receipts exceed expenses, it can keep as far below the limit as it likes, and there will be no chance for the limit to "become operative." It is only "actually operative" when the Government keeps receipts equal to or in excess of expenses because the limit is there rather than for other reasons. Mr. Keynes says (pp. 183–4) that the limit has never been actually operative, but it is difficult to believe it could ever under any circumstances be more actually operative than it was in 1920. To ask, as Mr. Keynes does, for its removal at a time when a considerable diminution of the currency is

urgently required to prevent a fall in its power to buy not only gold but also other commodities in general, seems ill-judged on the part of an authority who desires stability of prices.

It will perhaps be said that Mr. Keynes' rejection of currency limitation in favour of credit limitation is an *obiter dictum* unnecessary for his main purpose, which is to urge that we should continue to use a paper standard, but should regulate its value so as to keep it stable in purchasing power over commodities, allowing gold and foreign exchanges to go hang. Whether this would be desirable or not depends on our estimation of a number of probabilities, such as the likelihood (very small surely) of many other countries adopting the paper standard arrived at by the Government of Great Britain and Northern Ireland, and the possibilities of great changes in the productiveness of gold-producing. But before discussing whether we should make our pound stable in terms of commodities or in terms of dollars or gold, we may as well make sure that we know how to do it. We shall certainly make a mess of any scheme of regulation if we refuse to face the elementary fact that currency is no exception to the general theory of value, but, like other things, is cheapened by increased supply and made dearer by increased demand, or if we blind ourselves to the fact that the British Treasury is the only body which can supply Currency Notes and which can afford to burn them, or finally, if we imagine that under existing circumstances it is anything but the will of the Treasury to raise money in other ways which determines whether any fiscal year shall end with more or with less Currency Notes outstanding than it began.

EDWIN CANNAN

A COMMENT ON PROFESSOR CANNAN'S ARTICLE

SINCE Professor Cannan quotes and criticises a sentence from my book, but does not quote, criticise or allude in any way to the arguments which led up to my conclusion, I will re-state them briefly.

I criticised the old-fashioned policy of looking to the volume of legal-tender money in circulation as the regulator of the standard of value mainly on the two grounds: (1) that, by concentrating too much on one factor in the quantity equation to the exclusion of the others, it was theoretically unsound; and (2) that, used as a *criterion* for compensatory action through the bank-rate or otherwise, it gave the signal too late and was therefore practically inefficient.

(1) While the possibility of variations in the factor of the quantity equation which, in my book, I called the "volume of real balances," but which corresponds to what is called by others the "velocity of circulation of bank deposits" (which seems to me an inconveniently artificial conception), has always been admitted by sensible writers on Monetary Theory, it has been frequently assumed that, except over relatively long periods, these variations are not very large. We now know, however,—at least I think we do—that these variations can be both very large and very rapid, and, indeed, that, where we are concerned with the period of the credit cycle, it is they which are at the root of the trouble.

Let me repeat the quantity equation in the form in which I stated it in *A Tract on Monetary Reform* (p. 77):

$$n = p(k + rk').$$

where n = number of units of "cash" in circulation (defined on p. 83 as being, in the case of Great Britain, "note circulation *plus* private deposits at the Bank of England").

p = price of each "consumption unit," or in other words the index-number of prices.

k = number of consumption units, the monetary equivalent of which the public find it convenient to keep in "cash."

k' = ditto which the public find it convenient to keep in bank balances available against cheques.

r = the proportion of their potential liabilities (k') to the public which the banks keep in "cash."

Now, the old-fashioned doctrine used to be that if n could be kept reasonably steady, all would be well. My object was to point out that if k and k' were capable of violent fluctuation, steadiness of n might be positively harmful and must be reflected in an extreme unsteadiness of p,—this being, in fact, what has generally happened in booms and depressions of trade. As an illustration, I showed (p. 84) that if, beginning with October 1922, k and k' were to fall back to their values in October 1920, "prices would rise 30 per cent. without any change whatever in the volume of cash or the reserve policy of the banks." In short, Professor Cannan's policy could not save us from a very violent oscillation. I proposed, therefore, that when there were signs of a tendency of k and k' to change, this should be counteracted partly by appropriate movements of bank-rate and partly by direct action on the magnitude of n,—though this latter would take the form, at least in the first instance, of varying that part of n which consists, not of bank-notes, but of private deposits at the Bank of England.

In short, the policy of fixing the value of n by law is unsound, because the right value of n is not always the same but is constantly fluctuating. The same volume of note-issue, which is violently deflationary at one phase of the credit cycle, may be violently inflationary at another phase. This is equally true whether the primary object of our monetary policy is to keep the standard of value steady in terms of gold or in terms of commodities.

(2) But, furthermore, in a modern community with a developed banking system, an expansion in the circulation of legal-tender money is generally the *last* phase of a lengthy process. A tendency towards inflation can operate for a long time before it eventuates in a demand for more money in circulation; and by the time this point has been reached the thing may be out of hand and practically uncontrollable. To prescribe an effective maximum to the note-issue and to place one's reliance on that is like prescribing that a patient's temperature shall not exceed 99° and leaving him uncared for until the thermometer registers that figure,—by which time, maybe, nothing on earth can prevent his temperature from rising very much higher.

To explain completely why this is the case would involve a lengthy analysis. But I may instance one point in particular which is often overlooked. The current price quotations of wholesale staple commodities are those at which goods are being exchanged at the moment, or, rather, in the majority of cases,

at which contracts are being concluded for the exchange of goods at a later date. Now these transactions constitute only a very small proportion of the demand for bankers' services on the date in question. The bulk of the bankers' advances and the bulk of the cheques changing hands on that day relate to transactions which had been arranged some little time, possibly some months, previously. Thus there is an appreciable interval of time, perhaps from three to six months according to circumstances, before a change in wholesale prices produces its full effect on the balance sheets of the banks. Moreover, there may be a yet further interval before we experience the full effect of the above on the demand for Currency Notes. Currency Notes are largely required for the payment of wages, and the volume in circulation is mainly governed by the level of money wages and of retail prices. *In the long run* these are likely to move more or less in the same proportion as wholesale prices. But the causal connection between the two is very far from being instantaneous. Thus to allow prices and then credit to expand or to contract until the effect is felt in a demand for more or less money in circulation is to court disaster. By that time innumerable contracts will have been entered into which *cannot be cancelled*, and the volume of money in circulation can only be kept in check at the expense of bankrupting the business world,—a course often followed in former days when Professor Cannan's doctrines still held the field.

For these reasons those responsible for monetary policy must keep their weather eye on almost everything except the volume of the note-issue; that is to say, so long as they are doing their job properly. For the note-issue tells much more about how they have been acting in the past than about what they should do in the future; and a big movement in it proves, not that the moment has just arrived for changing the course, but that the navigation is already at fault and that they are on the rocks. To depend on the volume of the note-issue as the criterion of action, is like navigating with nothing whatever but a plumb-line and with one's eyes closed to the skies and the horizon.

There is nothing in this, of course, to conflict with Professor Cannan's doctrine " that due limitation of the amount of a currency is necessary for the maintenance of its purchasing power," or with the view that a limitation of note-issue may be required as a check against very gross abuse; though even in this case the method is not always efficient, because, when once matters are out of hand, it is *impossible* to enforce the limitation,

and it is idle to cry after the event, that, *if only* it had been enforced, subsequent disasters would have been avoided.

I also agree most strongly with Professor Cannan's satire against those who lay stress on a revival of trade "causing a legitimate demand for currency,"—"I am not *forcing* my currency on anyone." This theory generally leads to contracting the basis of credit just when it ought to be expanded, and expanding it when it ought to be contracted. Some endorsements of this most erroneous theory in this year's speeches by chairmen of the "Big Five" indicate a real risk of a period of inflation ahead of us.

On the other hand, there is much else in his article which I believe to be confused and wrong. Professor Cannan is unsympathetic with nearly everything worth reading—as it seems to me—which has been written on monetary theory in the last ten years. Yet the almost revolutionary improvement in our understanding of the mechanism of money and credit and of the analysis of the trade cycle, recently effected by the united efforts of many thinkers,[1] may prove to be one of the most important advances in economic thought ever made. The ideas are new. They are only just beginning to be capable of complete or clear expression. It is natural that middle-aged bankers should feel shy. But it is not natural that Professor Cannan should write as though none of all this existed, as though his own subject were incapable of development and progress, and as though the last word had been said years ago in elementary text-books.

J. M. KEYNES

[1] Mr. Bellerby has lately assembled in his *Control of Credit*, published by Messrs. P. S. King, (3*s*.) for the International Association on Unemployment, an impressive collection of opinions from many sources.

THE ORGANISATION OF LABOUR IN THE ARMY IN FRANCE DURING THE WAR AND ITS LESSONS

It has become almost a commonplace nowadays that capitalism, at any rate as the nineteenth century knew it, is showing signs of disintegration, that the motives upon which it relied for its success are not working and cannot be expected to work with their previous regularity. Capitalism stood or fell with its effective supply of "incentives to industry," and while it is perhaps by no means so dead and damned as some of its critics make out, its power to produce the necessary incentives is certainly weakening. It is clear that an increasing number of people do not believe in it, and that though it still supplies motives to work it is less and less producing willing work.

But men are more convinced of the inadequacy of the motives called out by capitalism than they are by the superiority of anything which it has been proposed to put in its place. Most of the alternatives offered make large demands on the unknown possibilities of human nature, and though human nature may not be as unchanging as the defenders of things as they are make out, neither does it show signs of possessing the infinite elasticity which some idealists ascribe to it.

Such being the case, it is clear that experiments in the working of new incentives are to be welcomed, and it may be of interest to set down the results of an elaborate experiment in the organisation of labour, where the economic motives were largely absent, and their place had to be taken by others—the organisation, namely, of labour in the British Army in France during the war. War-time psychology is of course in many ways peculiar and conditions abnormal. War is an activity of which it is difficult to speak in economic terms at all. For as our purpose in war is to end it as quickly as possible, there can be in a sense no question of economy of effort directed to bringing war to a conclusion, and the ordinary categories of economic and wasteful expenditure, though they do apply, can only be applied with difficulty. The end of all effort in war is simple—victory over the enemy; the ends of effort in civil conditions are infinitely complex, dictated as they are by the varying desires and concep-

tions of the life of individuals. Above all, the element of compulsion and military discipline which is the basis of all military organisation made the problem of the organisation of labour very different from what it is or could be in any society in which such compulsion is absent. For these reasons inferences from what happened in the War to what would happen under civil conditions must be drawn with the greatest caution, and there will always remain differences of opinion as to the value of any lessons which may be drawn from war experience.

Nevertheless, if we keep this precaution in mind, it may be found possible to discern certain principles at work in war experience which have a more universal application.

All war, and especially all modern war, involves an immense deal of activity other than actual fighting—activity whose purpose it is to enable the fighting man, infantry, cavalry, gunners, and aircraft, to fight more efficiently. Supply services exist to feed the fighting man and, in modern war, to feed his weapons. They have to construct and keep running the chain of communications between the home base and the fighting line. In France in the late war the importance of these services became very much greater than ever before owing to the enormous increase in the number and size of artillery which the stationary warfare brought about, and to the devastating effect of artillery fire on communications. These services had an elaborate organisation. The Docks Directorate, for example, was responsible for the unloading of ships in the French ports between Dunkirk and Havre, another service for the operation of the railways in the British zone, another for the construction and maintenance of broad-gauge railways, another for the construction and maintenance of light railways, another for the roads in the zone between the zone where the French and the zone where the Chief Engineers of Corps maintained the roads, another for inland water transport. All these were organised after the first year of the War in the Directorate General of Transportation, known as D.G.T. Besides these there were the older services connected more closely with the army formations—the A.S.C. concerned mainly with food and forage, the Ordnance Corps concerned mainly with ammunition, the Signal Service, the Medical Corps and the Engineers. It is not necessary for the purposes of this article to give a complete list of these administrative services or to describe their relations with one another and with the staff of the army and its formations, with G.H.Q., Armies, Corps, and Divisions. But there are certain charac-

teristics of all these services which for our purpose it is important to notice.

(1) They were all professional services. Each had its own special technique; its personnel had been selected because of their technical efficiency and had been given a technical training. Each had its special esprit de corps, and the efficiency of their work depended largely on the fostering and maintenance of this professional feeling. They were a practical example of Mr. Tawney's idea of the professionalisation of industry. Their professional pride, however, as will be seen, involved also a certain professional narrowness.

(2) While their technical efficiency was the concern of their departments, they all got their executive orders from the Generals in command of army formations. The officer in charge of light railways, for example, in an army area was told by the Army Commander where a light railway was needed and how much ammunition or other supplies had to be carried on it. For the technical details of his work he was ultimately responsible to the Director of Light Railways. The various army commanders said what was to be done; the special services were responsible for how the work was done. This is an important distinction. In economic language the Army Commanders with the assistance of the staff controlled the direction of production, the heads of the special services controlled the methods of production.

So far nothing has been said of the Labour Directorate. Its organisation had not been contemplated before the War. But with the development of trench warfare, and especially with the enormous strain of the Somme offensive, it was found that at a crisis like an offensive far greater demands were made on the personnel of the administrative services than they could possibly supply, while the expedient of using the fighting troops while they were out of the line on all kinds of labour gave the men no rest and interfered dangerously with military training. It was resolved, therefore, to supplement the administrative services described above by labour battalions or companies, distinguished from the men of these services by being comparatively unskilled. These labour companies consisted partly of coloured labour, Kaffirs and Indians, and at the end of the War mainly Chinese, partly of prisoners of war, and partly of men enlisted in Britain who were not physically fit for the fighting line. The Prisoner of War companies could not be employed within thirty kilometres of the line, the Chinese not within sixteen kilometres. In consequence all the work in the forward

areas was carried out by white enlisted labour. These last, like the rest of the army, were conscious of working for a common end, and in that they differed from the prisoners of war, who were made to work for an end which they did not want to bring about, and the Chinese who were working for an end to which they were indifferent. The British labour companies in spite of military discipline and compulsion were free labour, the prisoners of war were slave labour, the Chinese something betwixt and between. So far, therefore, as we are concerned with the psychology of the labourer as contrasted with the psychology of the employer, we shall consider only the British labour companies.

The first labour troops which were organised up to the end of 1916 were allotted more or less permanently to special services, but this practice grew to be impossible. For the essence of the situation was that the demands put upon the special services varied in intensity. In the preparation for an offensive, for example, there was a great demand for railway construction; during an offensive a great demand for the handling of ammunition, and so on. The actual needs of the various services varied from day to day. But each service, intent on its own efficiency, wanted as much labour as it could get and was very reluctant to give it up to another service when it had done with it. Each service, in economic language, wanted to keep its own reserve of labour, with the usual wasteful results. I remember hearing a high official, not in the British army, say, "If no ships came into my ports for thirty days, I would whitewash all my buildings and relay all my track sooner than let another damned department have a single man of mine." He was no doubt an extreme example, but there was a trace of that spirit in most administrative services. It is the reverse side of professional pride.

The remedy for this state of affairs was to declare that all unskilled labour was to be pooled and to set up an organisation, the Labour Directorate, whose business it was to look after labour companies, to know where all labour was, and to redistribute it in accordance with the directions of the general staff among the previously described services, whom I shall now call the employing or the technical services.

The labour put under the Labour Directorate was described as unskilled labour, but skilled and unskilled are relative terms. It included all kinds of labour, from Whitechapel Jews turned on to digging and to Chinese fitters repairing tanks. The common characteristic of all labour companies was not that they were

unskilled, but that they were transferable, went from one service to another. They worked under the direction of the technical service to which they were from time to time allotted. To the Labour Directorate was assigned the task of allotting them from week to week or month to month to the technical services under the general instructions of the staff, and of looking after their morale and general well-being.

This then was the general situation. The work of the army was done by the various technical services, working under the general orders of the higher command, and inspired by working for a common end which each man desired and by professional esprit de corps, getting from the Labour Directorate the unskilled or semi-skilled labour they needed. The cash nexus was entirely absent. Its place was taken by the fact that all were working for a common end they all desired, by military discipline, and above all by esprit de corps. It was as though Mr. Cole's Guilds, faced with the fact that the varying character of the demand for their work could not be met by expansion of their own personnel, made application for men to a Guild of unskilled labourers formed out of the General Labourers' Unions, who were allotted from time to time to the various Guilds by some organisation outside the Guilds as the general economic situation demanded.

There were, of course, certain features about the situation which would not be reproduced in the absence of a military system. Whether they existed in the Labour battalions reported in Soviet Russia I do not know. The direction of labour was controlled from above. No man chose what work he should do. He was drafted into this or that service on the orders of the military authorities, and his company was sent to this or that work on orders from the same source.

The reverse side of this arrangement was that men were not thrown back on the labour market when their services were not wanted. They were fed, clothed and paid irrespective of their being employed. Whatever work they were doing, they remained members of the same small society, their labour company.. The economic incentive of fear of unemployment had disappeared.

Under these circumstances the theory of the function of the Labour Directorate as set forth in the original memorandum defining its powers was a simple one. It acted as a Labour Exchange, receiving demands for labour from the technical services and allotting the labour available according to the instructions of the staff. In addition it was responsible for the administration of labour companies.

Here was a system where employers were competing for labour without having to pay for it, and where there was and could be no connection between output and earnings. What was the effect of the elimination of the influence of price on the supply and demand of labour? The effect on the labourer was very different from the effect on the employer, and one most noticeable moral of the experience in France is just this difference. Earlier political economy largely concerned itself with the psychology of the employer or entrepreneur, and interpreted the psychology of the employed in terms of that of the employer. Much modern speculation concerns itself with the psychology of the employed, and takes for granted the psychology of the employer. Really the two psychologies present problems that are quite different and need to be studied independently.

To consider first the effect of the system on the employed: men in British labour companies were not working for the benefit of a capitalist: they were working for the public good, and that not in any vague sense, but for a definite common end which they all desired. Did that fact *in itself* provide a sufficient incentive to industry? It was enough to make men in labour companies endure frightful hardship, danger and suffering. It is impossible to speak too highly of the behaviour of the British labour companies. They were all men of low physique; they were shelled in the daytime and bombed at night, with no dugouts to take refuge in, with very little of the psychological stiffening of previous military discipline. But if the question is asked whether the public motives which made them endure all that privation and danger were enough in themselves to make them work from day to day as hard as they would do under ordinary economic conditions, the answer is "No." I can give no statistics to support my answer, but I have no doubt that most people who saw anything of the work of the Labour Corps would agree that the mere fact that they were working for a public end had not much effect on output, except *where their imagination was stirred.* Men loading ammunition during an offensive, men laying a track for a gunspur, where they could picture the result of their increased output, did wonders. Men at the base, working day after day on tasks whose immediate bearing on victory was not obviously important, had a low output. The reason for this is simple and not discreditable to human nature. Men like to take an interest in their work, they like to know what they are contributing, they like to be able to appreciate the work of their hands, they like to be in a position to know

when their work is good. If they are treated as cogs in a machine, it does not much matter whether the machine is grinding out profits for individuals or benefits for the public. Being treated as a cog matters more than the purpose to which the machine is put. For treatment as a cog is obvious and ever present to the imagination, the purpose you are serving in the machine is difficult to keep continuously alive in the mind.

In the second place the fact that all were working for a public end did not in itself eliminate ill-feeling between employers and employed. According to the instructions issued when the Labour Directorate was first formed, the Directorate allotted men to the employing services, and the men thus allotted worked under the orders of the officers and N.C.O.s of these services. The technical services indented for labour as they indented for shovels, and some of their officers treated the men allotted to them as though they were living shovels. All the planning and contriving and thinking about how the work was to be done was the business of the men of the technical services, the labour personnel had only to do as they were told. In consequence the labour companies complained of the employing services, as in civil life many workmen complain of their employers. They accused the employing services of taking to themselves the private benefits, *i. e.* the Military Crosses and the Military Medals and the green envelopes which the labour companies had earned. But their real grievance was just that they were treated as mechanical instruments.

These two points are confirmed by a consideration of the methods employed by the Labour Directorate to increase output.

The first may be described as improvement in company morale. A stand was taken against men being employed except in companies or regular divisions of a company. I remember finding an ammunition dump in an area which my Corps had just taken over, where the labour was done by fifty odd men from seven different companies. The work was far better done by fewer men from one company. Companies and platoons were encouraged to keep records of the work they had done. The efficient labour companies were always intensely proud of their achievements, of the cubic feet per man per day they could excavate, of the ammunition they could load, of their special skill in this or that of the many kinds of job they were turned to. The effectiveness of this encouragement of company morale, and it was great, is only an example of Burke's famous assertion: "To be attached to the subdivision, to love the little platoon we

belong to in society, is the first principle (the germ as it were) of public affections." The distance which imagination has to travel from the isolated individual to the public cause in any great society is too vast unless it is mediated by companionship in a small society. All devotion to public good implies a common life inspired by and inspiring that devotion, and a real common life can only be lived in a small circle.

The second method appealed to what was practically an economic motive. There was something other than money which everyone did want, and that was leisure. It was possible by the organisation of task work to apply an effective incentive of the economic kind. The task work was always collective. The company or the platoon was given a definite job to do and allowed to go back to camp when they did it. I have called this an economic method, because its effectiveness was quite independent of the fact that men were working for a common end, as was shown by its being equally applicable to British labour, Chinese and prisoners of war. It had the further advantage that if it was to be applied fairly, the company or platoon had to be given some scope as to how they would do the work. It therefore led easily to the notion that the labour unit should be given a distinct task and then allowed to exercise its own judgment on how to carry out the work.

This brings us to the third method, the most suggestive and also the most fruitful of the three. It consisted in laying down that the technical services should state, not how many men they required, but what work they wanted done, and that the responsibility for the work and for contriving how most efficiently to do it was laid upon the labour company. For example, instead of the loading and unloading work in an R.E. yard being carried out by labour working under the orders of R.E. N.C.O.s with the labour officers looking on and seeing that their men did what the R.E.s told them, the company was made responsible for seeing that the required number of trains were loaded or unloaded within the required time. How they did it, what intervals of rest they took, how they arranged their squads, was their affair. They were not living tools, but men assigned a responsible task and given scope to do it.

The results of this method in increased production were extraordinary. A company working on what was called the contracting system did not need the incentive of task work. Officers and men alike found that in tasks which, when working under the orders of the technical services, they had found only

monotonous routine, there was abundant room for thought, for contrivance, initiative and experiment. They established an expert sphere of their own, they acquired professional skill, and with it professional pride. They remained, of course, under orders. They had no power to say what materials should be loaded or where they should be sent. When they dug trenches, the siting and the specification of the trenches was decided by others. But they had no grievance against not being asked to decide on matters on which they had no knowledge, so long as they had scope to decide on matters which their daily experience had led them to understand. To be given that is to be given what a man wants for his work; to be denied it is to be reduced to a living tool, which is Aristotle's definition of a slave. This method not only increased production, it also did away with friction between labour and the technical services. For the conventional relation between employers and employed was substituted the co-operation between two parties, each having its defined sphere of work and enterprise. The elimination of private profit alone had not, as has been noticed, removed the antagonism between employers and employed; the new method, giving labour a sphere of responsibility and initiative, removed the antagonism at once.

These facts seem to confirm the view that in a modern industrial society the fundamental antagonism is not between those who own capital and those who do not, important though that distinction may be, but is between those who take responsibility and manage and discipline, and those who are given no responsibility and are managed and disciplined, and that no solution of industrial problems is possible unless that antagonism is removed. How far the method which proved so successful in the army is applicable to industrial conditions is a difficult question. The work done by the labour corps involved little use of machinery, and therefore gave scope to individual and collective contrivance in a degree which would not be possible with machine production. The army experiments did, however, show that in work which under the old system had seemed to be merely mechanical routine, there was scope for contrivance and planning when men gave their minds to it.

So much for the effect of this sytem on the labourers. The effect on the employer was more startling.

The head of a technical service in any army formation acted as an undertaker in the old economic sense of that term. He undertook, *i. e.* he made himself responsible to the commander

of the army formation that he would complete a definite piece of work by a given date, would have certain lines of railway track laid and working by a given date, would deliver defined quantities of ammunition at a fixed point at fixed intervals, and so on. In making his calculations he had to consider what materials were necessary, and among his materials was included labour. How was he affected by the fact that he had not to pay for his labour, but got it by making out a case that it should be allotted to him? The employer's first impulse, as has been said, was to get under his control enough permanently allotted labour to be saved having to come and get it allotted to him from time to time. The Labour Directorate was organised to stop the intolerable waste created by each service wanting thus to have its own reserve of labour.

When making application for labour under the new scheme, the employer naturally wanted to make himself secure against any failure to carry out his contract through shortage of labour, and asked for as much as he could profitably use if the weather permitted continuous work and if all his materials came to hand up to time, and he no doubt gave himself a margin of safety over and above what these calculations justified. He often calculated that his estimate would be cut down and asked for a good deal more than he expected to get or wanted. If he could not profitably use the labour allotted to him at any time, he kept it working unprofitably in case the men should be found idle and some of them taken away from him and he not have them ready for use when his demand expanded. He was always trying to get a reserve of labour of some kind. Some employers remembered the needs of the army as a whole as well as the needs of their own job, and did not ask for more than they really needed, but no employer in making his calculations had any strong compulsion on him to think how he could save labour. He had plenty of things to think about without that. It was his primary business to take all measures necessary to do the job he had undertaken to do, and as it cost him no more to ask for two companies than for one, he had no encouragement to economise.

The consequence of this was that labour was not used economically. There was a great shortage of labour and employers competed against one another. They were all working for the same end, and yet they constantly took measures in furtherance of their particular function which were prejudicial to the interests of the whole and which really hindered the ultimate purpose for which they were working. The cause of

this was not simply that many of them had been trained in a capitalistic system and could not leave off their bad competitive habits when they got into the army. That may, no doubt, have had its effect. But the real cause was something more fundamental and more irremovable.

They were all rightly conscious of the importance of their particular function. The professional pride which that inspired had a good deal to do, as has been said, with their efficiency, but it involved the danger of the exaltation of their own function more highly than the general interests allow. Their competition was not based on selfishness. No doubt some of them thought more than they ought about promotion or decorations, but the main motive behind their competition was a more honourable one. They were thinking not of themselves, but of their job. One of the most troublesome and extravagant employers from a labour point of view with whom I had to deal was a single-minded enthusiast with a conviction that "light railways would win the war." The employer quite naturally felt that his business was to do his best for his job, and it was other people's business to do their best for theirs, a state of mind which within limits is entirely creditable and to be encouraged, but which, when the ordinary check of cost was removed, had disastrous results.

The Labour Directorate, working under the instructions of the general staff, was entrusted with the task of co-ordinating the demands for labour and apportioning the available labour as the tactical situation demanded. Its functions appeared to be simple. The Deputy Assistant Director of Labour at a Corps Headquarters, for example, received demands for labour from the various services working in the Corps area. When these demands could not be met from the labour at his command, as they never could, he went to the Corps Commander or one of his staff. The Corps Commander from his knowledge of the needs of the tactical situation assigned to the demands an order of priority. The D.A.D.L. then met the demands in the order thus fixed as far as his labour would go.

So long, however, as the demands themselves were not criticised, but only given an order in which they were to be satisfied, this plan, if carried out consistently, meant that the service that was given priority was given all the labour that it asked for, whether or not it asked for more labour than it needed. This meant that some of the men allotted to it were contributing very little to a work of primary importance when they might

have been contributing a great deal to a work of secondary importance. Whatever the relative importance of the different things to be done, there was clearly a point where it was not profitable to give additional men to the more important service rather than some men to the less important service. In economic language, the principle of marginal utility came into play.

The difficulty was that there was no satisfactory means of discovering the marginal utility of labour. The only person who was really in a position to say how much labour was wanted, or rather with how few men the necessary work could be done, was under no pressure to make the calculation. He had not the spur of having to pay for his labour to make him careful to confine what he asked for to what he really needed. The staff could estimate the relative importance of the works which the various employers had contracted to do; they had no satisfactory means in the absence of price of estimating the *intensity* of demand. In practice the only thing that the officer of the Labour Directorate could do was to form a rough-and-ready estimate of the genuineness of an employer's demand, taking into account his estimate of the honesty of the employer, and cut down the labour supplied accordingly. To the employer's contention that he was an expert and knew, as no one else could do, how many men were wanted, the officer of the Labour Directorate could only reply that the technical officer was no doubt an expert but he was also a liar, or words to that effect. In practice the system worked because it was in the interest of the employer to establish a reputation for being economical in his demands, because he found that if he got that reputation, his demands for labour were met promptly and in full. But there was inevitably a good deal of friction and cross swearing. No doubt under less varying and abnormal conditions the average labour cost of different tasks could have been ascertained and used as a standard, but that would only have meant levelling up the bad to the good employer. The Labour Directorate were able in time to have a fairly clear idea of what the standard of the careful employer was, and used that knowledge to level up. But because the standard of the careful employer was not formed under the pressure of having to pay for labour, because the employer's primary business was not to save labour, but to get his job done, the cost being not his business but the army's, the standard was never a high one. Labour-saving devices were almost all introduced as the result of the pressure of the Labour Directorate, *i. e.* by the outsider who was not really in such

a good position as the employer if he had had the will to do so.

A partial solution of these difficulties was provided by the contracting system described already. For there the employer merely stated what he wanted done. The position then was that the staff determined what results were wanted, the technical expert reduced these results to specifications of so much cubic feet of earth lifted, so many yards of railway track with so much ballast laid, and so on, and the labour company whose special business was to be experts in knowing how much labour was wanted for particular jobs, and whose professional interest was to supply as many demands as possible and thus to save labour, detailed the men required. The solution was only partial, because this separation of functions was not always possible and the system of contracting not universally applicable.

The moral of this experience is the extreme difficulty of separating the technical work of production from the task of co-ordinating various forms of production to a common purpose. The employer in estimating the means necessary to carrying out his particular task is acting as an expert. But if the necessary means are to be supplied by someone else, the employer's estimate of his needs affects the work of co-ordination. The more he has of someone else's work, the less there is for other employers. He is encroaching on the work of co-ordination, for which he feels no special responsibility. If he has not to pay for the services of others, he has a strong temptation to think only of the efficiency of his own work and make irresponsible demands. The co-ordinating authority, on the other hand, cannot do its work of co-ordination without knowledge of the producer's real needs. Where the employer has to pay for services, the price he is prepared to pay is for him an expert question, but at the same time it affords a guarantee to the co-ordinating authority that the demands made by the employer are real demands. But if the machinery of buying and selling is abolished, the check disappears and the co-ordinating authority is set a hopeless task. Earlier economic theory held that in civil life the importance of the various services rendered by individuals or groups might be left entirely to the play of supply and demand. We have come to recognise that effective economic demand does not always mean socially useful demand, and the State now supplements the play of the market by encouraging certain forms of production and discouraging others, by endowing education and research, for example, and by heavy taxation of the liquor

traffic. It is sometimes held that this conscious co-ordination might entirely supersede the unconscious co-ordination of economic forces. The army presented a peculiar field for such conscious expert co-ordination. It would have been madness to allow the direction of production to have been determined by economic forces. But army experience shows that the complete supersession of economic relations has unexpected and alarming results. The working of supply and demand may have disadvantages, but they are nothing to the disadvantages of wangling.

If an attempt is made to sum up the application of this army experiment as a whole to the problems of industrial reorganisation at home, it will be obvious that the lessons it suggests seem to conflict. I can imagine that Mr. Cole and the Guild Socialists would claim that the first part confirms their teaching: that the contracting labour company is the guild; that the development from the first methods of working to the principle of contracting is the development from national to guild socialism; and such a claim would not be without justification. But I do not think they would find much comfort in the account of the effect of the system on the employers. On the other hand, the upholders of things as they are may find confirmation of their belief in "the impossibilities of socialism" in the second part. Again with some justification. I venture to suggest that the real lesson of the army experience is contained just in this conflict, in the contrast noted already between the psychology of the entrepreneur and of the workman. Neither can be eliminated and a sound industrial theory must do justice to both.

A. D. LINDSAY

THE INCOME OF TENANTS ON A SCOTCH OPEN-FIELD FARM IN THE EIGHTEENTH CENTURY

THE following figures are based on an old farming account book dated 1769–1779, and they seem to throw some interesting light upon the life and conditions of the smaller sub-tenants to whom portions of the farm were let.

The Davoch of Dunachton, which now forms the two farms of Dunachton More and Kincraig, was situated in Badenoch, the district covering the upper reaches of the Spey. The soil is exceptionally good, and, owing to the slope on which the fields lie, the introduction of deep drainage has probably made less difference in making the better land available for cultivation than in most parts of the country.

We have the following contemporary account of Dunachton by the proprietor: "On a farm rented from me by McIntosh of Balnespick for £86 13*s*. 4*d*. str., 240 people are supported, of which 60 are able to carry arms" (*Notes Descriptive and Historical, principally relating to the Parish of Moy in Strathdearn*, by Sir Eneas Mackintosh of Mackintosh, Bart., written between 1774–1783 and privately published by the present Mackintosh of Mackintosh in 1892. See p. 37.) A davoch of land usually contained about 416 acres of arable (see Cosmo Innes, *Scotch Legal Antiquities*, pp. 271 and 241), the subdivisions being—2 oxgates of 13 acres each = 1 husbandland, 4 husbandlands = 1 ploughgate, 4 ploughgates 1 davoch. The ploughgate was said to be the commonest unit for a farm held jointly by small tenants, but in Badenoch, where farms were usually let to a principal tenant or tacksman, they seem to have generally consisted of two ploughgates each (see Gordon Rent Roll for 1600, published in Vol. IV of the new *Spalding Club Miscellany*). The oxgates were each supposed to furnish an ox for the common plough, and the ploughgate was supposed to be the extent that could be ploughed in a season. The old joint tenants were therefore successful co-operators, and the subdivision of their shares of land was more scientific than is the case with many of our present-day small-holdings with their partially employed horses and

ploughs! (see *Report on Economics of Small Farms and Small Holdings*, published by the Scottish Board of Agriculture, p. 37).

In his account book Captain William Mackintosh of Balnespick gives a list of the rentals of his sub-tenants, and as the names of most of their holdings have come down to the present day, it is possible to call up a fairly vivid picture of their general conditions if one cares to "read between the lines" of crabbed handwriting in the yellowing old book. Forty tenants are mentioned in all, and eleven more names occur through the account book as belonging to different parts of the davoch, and who were probably cottars and servants to the larger sub-tenants. The land was sub-let as follows:—

Group 1.—One holding of about 40 to 50 acres, let singly. Now out of cultivation.
One holding of about 40 acres, rented jointly by two tenants. Now out of cultivation.
One holding of about 40 acres, rented jointly by three tenants. Now out of cultivation.

Group 2.—One holding of about 50 acres, rented jointly by two or three tenants. Now under partial cultivation.

Group 3.—One holding of about 65 acres, held singly. Still under cultivation.
Two holdings of about 39 acres each, held singly. Still under cultivation.

All these holdings were on less fertile soil than that now under permanent arable cultivation at Dunachton More. Group 3 probably gives at least two returns less for the amount of seed sown under modern conditions. Group 2 is less good than Group 3, and Group 1 is distinctly inferior to Group 2 both as to soil, accessibility and the lie of the land.

In addition there was one holding of 3 oxengates = 39 acres, five holdings of 1 oxengate each held singly, four holdings of 1 oxengate each held jointly, and fourteen holdings of half an oxengate each; all these holdings being on exceptionally good land. Some of them were on portions of the ground cultivated by the principal tenant himself, or by his son, others were grouped on a smaller farm now cultivated as part of Dunachton More, held jointly among themselves. (Note: the position of this farm is easily identified. It is now covered by a fifty-acre field. At present the soil is equal in quality to that of the rest of Dunachton

More, but in those days it may have been inferior, and the amount under constant arable was probably less in extent, for this part of the farm is still inclined to be damp and owes more to deep drainage than does any other. In the opinion of the present tenant farmer drainage has doubled the yield of this field, both by increasing the returns to the seed sown and the actual area under cultivation). On the whole it would therefore certainly be no over-statement to assume that the harvests and crops of the sub-tenants were very similar to those of the tacksman.

According to Mackintosh of Balnespick's Account Book, the sub-tenants of an oxengate usually sowed 17 bolls of grain yearly, the whole of their strips of common field being under cereal crops year after year. The usual proportion of grains that they sowed were two-thirds of oats and one-third of bear or bigg, an inferior sort of barley, with some admixture of rye and pease. (Note: this is the usual proportion of Balnespick's own sowings. See also Sir John Sinclair's *View of the Agriculture in the Northern Counties*, p. 80; *Northern Rural Life in the Eighteenth Century*, by Alexander, chapter iv.; Mr. Marshall's *Report on the Agriculture of Central Scotland*, etc.) Balnespick himself gives year by year the

	Amount of meal and grain used, for every boll sown by Balnespick.		Crop on an oxengate allowing a sowing of 17 bolls.			Crop on a half oxengate allowing a sowing of 8½ bolls.		
Year.	Oats.	Bear.	Oats.	Bear.	Total.	Oats.	Bear.	Total.
1769	2·26	5·75	25·613	32·583	58·196	12·806	16·291	29·098
1770	deficit of ·5 for seed	not stated	deficit of 5·666 for seed			deficit of 2·888 for seed		
1771	·12	2·68	1·359	15·184	16·544	·679	7·592	8·271
1772	·88	3·64	9·973	20·626	30·599	4·986	10·313	15·299
1773	2·16	4·17	24·679	23·629	48·103	12·339	11·814	24·054
1774	1·45	1·37	16·433	7·763	24·196	8·216	3·881	12·097
1775	2·86	3·8	32·413	21·522	53·935	16·206	10·761	26·967
1776	Total 1·53				26·01			13·005
1777	1·13	2·14	12·806	12·126	24·932	6·403	6·063	12·466
1778	1·66	·33	18·813	1·813	20·68	9·406	·934	10·34

quantity of grain he actually sowed, of the meal he used in the house, and of the grain or meal that he sold, and it is therefore possible to calculate the amount of produce actually used of every boll of seed he put into the ground. (Not the actual return in grain, weight by weight, for of course the amount of meal produced from a given measure of grain varies according

to the kind of grain and to its quality.) Allowing for resowing, the crops of the tenants would be as in the table on p. 85, according to this rough-and-ready method of calculation. (Note: the measure in common use was the boll, which is equal to 10 stone grain and 9 stone victual.)

In addition the sub-tenants kept a certain amount of live-stock. As far as can be calculated, even the holder of a half oxengate must have maintained the following animals:

A share of the food of an ox to work in the common plough. (The old Scotch ox-plough was used by the sub-tenants in Badenoch as late as 1795; see *First Statistical Abstract for Alvie Parish*. Vol. XII. p. 137.)

Two garrons, hardy Highland ponies of about 12 hands, for carriage of peats, corn, etc. In Balnespick's Account Book the loads carried by these little horses are given as 1½ bolls, *i. e.* 15 stone.

Two cows to supply the milk on which the family lived and for raising calves. They were considered good milkers if they gave five pints a day, and they rarely produced a calf oftener than every second year.

Five stirks at least. The sale of cattle was the main way of paying rents in the Highlands (see Sir Eneas' *Notes*, p. 38), and under the miserable conditions of cattle-rearing bullocks were not ready for sale as unfattened beasts till their fourth or fifth year. In addition, it was generally calculated that at least one in every five died each winter. The rent of the half oxengates averaged £1 10*s*., and those of the oxengates about £3, and the sale of such bullocks brought in about 30*s*. a head; it would therefore be necessary for a holder of half an oxengate of land to have at least four or five cattle of different ages coming on, and for the tenant of an oxgate to keep double that number. A few sheep were also probably kept for wool to supply the family clothing, and to supplement the milk of the cow.

(Walker, *On the Hebrides*, Vol. I. p. 56, published 1812, has the fullest account of the Highland animals; see also Sir John Sinclair, *View of the Northern Counties*, published 1795, p. 76, both of which contain the lists of stock required on a farm, though the latter reference is dealing with one devoted more to corn-raising. There are good summaries in *Northern Rural Life*, by Alexander, chaps. ix. and x., and Section II. of Vol. I. of *Lectures from the Mountains*, a little known, anonymous book written by the son of a farmer in Glen Avon about 1860.)

The rents of the oxengates and half oxengates seem to have

covered "promiscuous eating" on the stubbles of the common field and the out-field and pasturage in the hills in summer, but additional grazing, or a share of the hay "midow" was charged for extra. The stock also were fed on the straw of the cereal crops. The cows certainly received corn and hay, the cost of wintering them being apparently about equal to the value of two bolls of corn, and it is unthinkable that the oxen did not receive some corn, in addition to a scanty diet of straw and inferior hay (no grass seed or clover was sown) when they did the ploughing. It would therefore be safe to allow the value of two bolls of the crop on a half oxengate for the maintenance of one cow—they probably kept two and helped to maintain an ox—and to allow for at least two cows and some small share of corn for the work animals on a larger holding.

The amount of meal consumed by the family can be estimated more exactly. Sir John Sinclair, in his *Report on the Northern Counties*, p. 82, describes the dietary of a small tenant farmer as mainly consisting of preparations of meal and milk. "There is not 5lb. of meat consumed within the family throughout the year; an egg is a luxury that is seldom or ever indulged in, far less a fowl; we have seen in the summer season a haddock occasionally, as a wonderful regalement. By this mode of living, two men, two women, three children and a grown girl or lad may subsist in all upon £15 4*s*. per annum, but hardly in a manner adequate to give spirit or strength for labour." Sir John Sinclair calculated the amount of meal per head at six bolls for a man four bolls for a woman and a boll apiece for children. Assuming that the average size of the families of sub-tenants on Dunachton was five—father, mother, three children—and this is certainly no over-estimate, for the number of dependants to each fencible man in Sir Eneas' statement is four, and Highland families were famous for their size (see Adam Smith, *Wealth of Nations*), the annual consumption of meal would be thirteen bolls per family. The home consumption of meal and grain for an oxengate would therefore probably be about eighteen bolls at least, and for a half oxengate fifteen bolls. The corn from their holdings therefore sometimes showed a surplus and sometimes a deficit, and unfortunately the local price of corn was extremely variable, owing to the uncertainty of the Highland climate and the difficulties of transport from other places, and they had to sell in a low market and buy in a dear one. Balnespick does not always quote the price at which he sold or bought his corn, but I have endeavoured to supplement the information from other sources :—

		Oxengates		Half oxengate.	
1769.	Price of oatmeal per boll 10s.	Surplus 40·2.	Profit £20 0	Surplus 14·0.	Profit £7 0 0
1770.	„ „ „ 20s.	Oats showed a deficit of ·5 for sowing. Bear uncertain. Total deficit (maintenance and sowing) probably at least 18 bolls.	Deficit £18 0 0	Deficit 15 bolls.	Loss £15 0 0
1771.	10s.	Deficit 2·5.	Loss £ 1 8 6	Deficit 6·7.	Loss £6 7 3¼
1772.	18s.	Surplus 12·6.	Profit £11 6 9½	Surplus ·3.	Profit £0 5 4¼
1773.	15s.	30·3.	£22 10 0	„ 9·2.	„ £6 18 0
1774.	16s.	6·2.	£ 4 19 4½	Deficit 3·0.	Loss £2 8 0
1775.	14s.	35·9.	£25 2 2¾	Surplus 11·9.	Profit £8 6 0
1776.	18s.	8·0.	£ 7 4 0	Deficit 2·0.	Loss £1 16 0
1777.	16s.	6·9.	£ 5 10 4½	„ 2·5.	„ £2 0 0
1778.	18s.	2·7.	£ 2 8 7½	„ 4·7.	„ £4 4 7

The slight additional profit caused by the additional price of barley may well be set against cost of cartage to market, interest on money borrowed in bad years, etc.

The additional outgoings would include 1s. yearly towards the payment of the fox-killer (Note: this item appears in all the old rentals I have seen. Before game was preserved the havoc wrought by vermin on the farmer's live-stock was considerable); 1s. 6d. at least towards the stipend of the minister, and payment to the schoolmaster. These three items were collected by Balnespick. Multures to the mill in payment for grinding; a surprisingly large amount for whisky (it is evident from the Account Book that several of the tenants spent many shillings on this commodity); shoes or hide to make them of; flax; the weaving of homespun yarn; probably some cloth that was not home-made; tailoring of the men's clothes (General Stuart's *Manners and Customs of the Highlands* makes it clear that this was not done at home). Salt for the cattle, which seems to have come to 1s. 6d. a year; the replacement of implements (being mostly of wood, they were cheap, but must have required constant renewal: see Sir John Sinclair, *View of the Northern Counties*, p. 75, and *Northern Rural Life*, chap. vi. for the fullest accounts of them. Sir John Sinclair estimates their total value at £3 3s., and the cost of renewing them annually at £2). The replacement of live-stock; payment for and maintenance of steadings.

Three items of present-day expenditure that do not appear are fuel and lighting, which were provided by peat and fir-wood; artificial manures, which were not used; and the provision of seeds. Turnip and hay-seed were not sown, oats and bear were taken from the old crop or bought locally.

Additional sources of income were the sale of eggs and fowls—which then sold in Inverness market at 2d. a dozen and 4d. to 6d. each, respectively (Sir Eneas Mackintosh's *Notes*, p. 43). Work as day labourers at 6d. a day; and spinning or the sale of woollen yarn, which cannot have been lucrative, as the finished

cloth only sold at 10*d.* an ell (*First Statistical Account for Alvie*, Vol. XIII. p. 379).

Even a small croft of 13 to 17 acres would tend to give a fairly full employment. Under present conditions the cultivation of a ten-acre croft would only amount to 80–100 full days' work (see *Report on Economics of Small Holdings*, p. 35), under the open-field system, with wooden ploughs; herding; tathing, *i. e.* manuring the land by confining the animals in a fold of sods that was moved every eight or ten days, which was regularly practised by Balnespick (for a description of the process see Robertson's *Report on the Agriculture of Inverness-shire*); threshing by means of the flail; elaborate systems of weeding to clean the dirty ground (see *Northern Rural Life*, chap. v.), etc., the amount of work needed must have been very much greater. Thus Sir John Sinclair's typical farmer of 37 acres (*View of the Northern Counties*, p. 79) employs three servants, and in Balnespick's Account Book the larger sub-tenants certainly had labourers or cottars on their land.

In addition to work on their own holdings, the sub-tenants had to perform a considerable amount of labour for the tacksman. From the Account Book it is evident that they helped with the harvest, ploughing, harrowing and tathing, they also "did the long carriage," *i. e.* went an errand with a horse and cart at their landlord's pleasure—in 1771 the long carriage consisted of taking loads of bark to Forres, about forty miles off. And it is almost certain that they also cut and carted the peats, for this was a universal service and one of the last to be abolished.

In trying to visualise the hard struggle these people endured it is difficult to realise that their circumstances were unusually favourable, for Dunachton More is an exceptionally productive farm, and the years 1769 to 1779 were not remarkable for special scarcity. Only four years ahead, the terrible shortage of the "Year of the White Peas," lay before them—one of the long series of famines that the Highlands endured, when the people were obliged to rely for food-stuffs on their own uncertain climate and not very productive soil. (See C. Fraser Mackintosh's *Letters of Two Centuries*, p. 303, for local effects. A more general account is given in *Northern Rural Life*, chaps. vii. and viii., and the first volume of Transactions by the Highland Society, published about 1799. I have seen personal letters describing the later shortages of 1802 and 1817–9, but so far as I know they have never been described in any published work.)

I. F. GRANT

REVIEWS

Representative Government and a Parliament of Industry: A Study of the German Federal Economic Council. By HERMAN FINER, of the London School of Economics. (The Fabian Society and George Allen and Unwin, 1923.)

MR. FINER'S history and analysis of the German "Economic Council," from its pre-war origin to January 1923, is of first-rate importance for every student of political science.

The war that was to make the world safe for democracy has brought democracy, in the sense of majority rule based on territorial elections, into a condition of rapidly increasing weakness. Every year "politics" and "politicians" are becoming more dangerously discredited, and it is becoming more easy for any organised minority which is prepared to use force to overthrow governments based on local elections and political persuasion.

Mr. Finer believes that this discredit of territorial democracy has been due, not to the wickedness of its opponents, but to its own inability to carry out the urgently necessary work of social invention. Territorial democracy has failed as a "will-organisation" because it has failed as a "thought-organisation." He spent the summer vacations of 1921 and 1922 in Germany studying the history of the German Federal Economic Council and interviewing those who had made that history. He has returned passionately convinced that parliamentary institutions cannot succeed in the modern world unless they are supported and enriched by a system of functional representation. His book, however, because it is a full and accurate record of facts, will be as useful to those who disagree as to those who agree with his main thesis.

In the winter of 1918–19 the leaders of the German Republic rejected the "Soviet" idea of trusting all power to the working-class vocational bodies, and convoked a National Assembly based on territorial elections. The new Government was opposed by a series of revolutionary strikes, and on March 5, 1919, made peace with the revolutionists by promising to incorporate in the constitution a hierarchy of Workers' Councils, District Labour Councils, and a national Central Labour Council. A majority of

those who made this promise seem to have believed that they had been coerced into an unwise engagement, but, the promise once made, the Government set themselves to carry it out. The scheme, however, actually adopted was very different from that apparently contemplated by the Declaration of March 5, 1919. Only the Central Council was created (though with the intention that it should be followed by the creation of local councils). The Central Council was not a "Workers' Council" but an "Economic Council." When established by the decree of May 4, 1920 (after a long and extraordinarily interesting controversy, of which Mr. Finer gives a full acount) it consisted of 326 members, 128 of whom represented employers, 128 workers, and 70 the community (co-operators, housewives, officials, liberal professions, and the nominees of the Reichsrat and the Executive Government). Its powers are strictly consultative, but include the right to insist on being consulted, to bring its proposals and criticisms before the Reichsrat and the Reichsrat committees, and to pay its own expenses from a separate budget passed by the Reichsrat.

To many of the German communists this scheme seemed a mockery of the programme for which they had contended in 1919. But Mr. Finer insists that though the functions of the Economic Council are purely advisory they are yet of vital importance. In the complex society of to-day, he argues that the work of invention is at least as important as that of decision, and a council consisting of men closely connected with the daily organisation of production and consumption will be more likely (even although their powers are advisory) to invent wise forms of national action than are the hard-driven omnivalent representatives of territorial constituencies.

The psychological question which Mr. Finer here raises is not a simple one. Dr. Rivers, in his posthumous *Psychology and Politics*, argues that a committee with advisory powers is more likely to think effectively than a committee with executive or legislative powers, because it is free. I myself believe that, generally speaking, the sharp edge of effective thought is more likely to be the result of responsibility for action. But the thinking that can be done by those who are responsible for the central government of a modern nation is strictly limited in amount. A minister or member of parliament is, I believe, likely with the same amount of ability and knowledge, and in the same amount of time, to think more effectively than a Civil servant or an advisory expert; but he can only spare a fraction

of the time given by the others and only accumulate a fraction of their knowledge.

If power could be subdivided as easily as thought, no problem would arise, but unfortunately in a modern society, since all our actions influence all our fellows, power must be concentrated in the hands of a few individuals so placed that all the contending forces shall impinge upon them. Therefore both in the government of nations and in the direction of international organisation the central political problem of our time is how to contrive that the less responsible mental processes of the expert adviser shall give more help than at present to the more responsible mental processes of the statesman.

On all this problem the experiment analysed so ably by Mr. Finer is, perhaps, even more important than the British experiment of a competitive Civil Service, or that late-mediæval experiment of recognised universities and academies on which so much of the intellectual structure of the modern world was founded. No one, indeed, has ever worked so hard at the relation between political power and social function as the German thinkers whose speeches and memoranda Mr. Finer here translates. To me only one major element in the problem seems to have been omitted in the German controversies of 1919–23. The statesmen and workers and employers concerned were dealing with an immediate problem made more terrifically urgent by the results of the Treaty of Versailles. They were bound to think of the existing employers and workmen as the representatives of the employing and working elements in society. Nations living under less immediate danger should, I am sure, pay more attention to the fact that the distribution of functions among the members of a community is being constantly changed by death and birth and by intellectual and social development. An organisation of the building trades or the medical profession may suit well enough the facts of 1923, and yet may make so little allowance for future recruitment and adaptation that it may produce such a system of social distortion and functional monopoly that, like the late mediæval gilds, it must be swept away by political or industrial evolution. And a system by which existing professional organisations are given constitutional consultative rights may do much to increase the rigidity of their organisation.

Mr. Finer's study stops in January 1923, that is to say, at the most critical point of the experiment. We have, therefore, the right to ask him to bring his account in the near future again up to date, and to tell us how far the advisory functions of

the Central Economic Council have proved to be an effective force in the guidance of German economic policy, and how far it has been found possible to carry through the difficult work of organising the local councils on which the Central Council is ultimately to be based. If this means that Mr. Finer will give us a second edition of his book, that fact will have the further advantage of enabling him to correct a number of passages in which he has apparently allowed his own meaning to be obscured by a confusion between English idiom and the German idiom of his sources.

GRAHAM WALLAS

Business Cycles and Unemployment: Report of a Committee of the President's Conference on Unemployment. (McGraw Hill Publishing Co., Ltd., London, 1923. Pp. xl + 405.)

Cycles of Unemployment in the United States, 1903–1922. By WILLIAM A. BERRIDGE, Ph.D. (Houghton Mifflin Company, Boston and New York, 1923. Pp. x + 87.)

THE first of these books appears as the Report of a "Committee on Unemployment and Business Cycles," appointed from the President's Conference on Unemployment that met in September 1921. Mr. Herbert Hoover, who presided over the Conference, contributes a brief foreword; the Committee themselves make a Report with Recommendations of about thirty pages. The main bulk of the book and, from the point of view of economists, its most valuable part, gives the results of an investigation made for the Committee by the "National Bureau of Economic Research"; it contains twenty separate contributions by as many different writers. Though, from its composition, the volume necessarily fails to achieve, as it does not aim at achieving, the synthesis of facts and theories upon which the final illumination and solution of any problem depends, it is an extremely valuable survey of the principal aspects of the problem of unemployment and of the latest facts in America that bear upon it. The actual "Recommendations" of the Report, with two exceptions, are somewhat indefinite; they emphasise the importance rather than the means of a more scientific control of credit expansion by the banks and by the Federal Reserve Board, or of their own industries by business men, or of public and private construction at the peak of the boom. The two definite recommendations are for better collection and distribution of statistics and the establishment of a national system of employment bureaus. On unemployment insurance, which in this

country accompanied the establishment of Labour Exchanges, the Committee are rather notably hesitant, though the investigation of the National Bureau includes a full and well-informed and, on the whole, favourable chapter by Mr. Leo Wolman, on the working of insurance in Britain and elsewhere.

For several of the other chapters in this part of the book Professor Wesley Mitchell is in whole or in part responsible, and all that he says demands attention. Particularly interesting, if somewhat speculative, is the endeavour to estimate the economic losses, in production and in income, caused by business cycles. "The broad result is that the worst years run something like 15 to 20 per cent. behind the best, and something like 8 to 12 per cent. behind the moderately good years." The summary description of business cycles (based, of course, mainly on Professor Mitchell's earlier book) leaves rather glaring the gap in his argument as to why prices rise from a depression. Increasing cost of production, through the "cumulative expansion in the physical volume of trade," is surely no explanation at all. When, late in the revival, factories are passing from being fully occupied to actual expansion of staff or machinery, they naturally may have greater expenses and may raise prices. But, at the beginning of the revival, when factories are passing from doing only a fraction of their normal output up to full output, the cost of each unit of production must be falling, not rising.

The substance of Mr. Berridge's book named above appears also in this investigation as a contribution on "Statistics of Employment." Those who, every time that unemployment is more severe than usual, cry over-population or the end of the world, should consider his statement that "in actual diminution of employment, the depression of 1921 was almost twice as acute as 1908." From 1921 America has recovered; 1908 is generally reckoned one of her worst years.

Other chapters deal with the methods of stabilising production in particular industries, such as textiles, engineering or building, the long range planning of public works and the problem of "cancellation" of orders in times of depression. Financial devices for controlling or mitigating the severity of business cycles (this, of course, is the heart of the subject) are treated shortly, but with excellent judgment by Mr. T. S. Adams. He discards any single remedy. "The clearest duty of business man and banker is to assist in the development of more accurate cyclical statistics. Plot the phases of the cycle, and a combination of self-interest and vitalised public opinion will force the

application of the many remedies—not one remedy—which common sense will show to be appropriate. To anticipate the cycle is to neutralise it."

W. H. BEVERIDGE

Costs and Profits: their Relation to Business Cycles. By H. B. Hastings. (Cambridge, Mass.: Houghton Mifflin Co. Pp. xi + 168.)

THIS book is the third of the series being produced by the Pollok Foundation, the first being Irving Fisher's *Making of Index-Numbers.* The author undertakes the difficult task of trying to throw further light on the causes of fluctuations in business activity. He sets out to investigate, by analytical reasoning, why it should be that a period of business activity cannot continue without rise of prices or accumulation of growing stocks of goods. The rôle of the speculative dealer is recognised, but the principal contention is that the accumulation of unsold goods during the upward swing of business is due to the failure of the flow of purchasing power into the hands of ultimate buyers to keep pace with the flow of finished goods into the market. The principal reason for the insufficiency of purchasing power the author finds in the fact that business concerns do not promptly disburse all realised profits. If they disbursed an amount equal to their full cost of production, purchasing power would increase *pari passu* with goods for sale, and most of the book is taken up with an analysis of the various ways in which this full disbursement fails to be made.

There is much that is interesting and useful, and the book repays study. The critic may suggest, however, that insufficient attention is given to the question whether saving of income, whether by individuals on their own behalf, or by business concerns, is any larger than normal in the circumstances in question. Wealth is presumably growing, and the saving of a certain proportion of realised income is a normal circumstance. If it be the case, as no doubt it is, that in times of prosperity business firms, instead of disbursing the total profits which they might disburse, by various devices, tuck away some of the profits, it might be the case that if they did not do so, the individual shareholders would save more. The state of business activity which is in contemplation implies, for the time being, an acceleration of the normal rate of growth; and is not a corresponding acceleration of saving necessary if equilibrium of prices is to be maintained? How can the accelerated output of houses, machinery, railways,

etc., be marketed if there be not the normal proportion of income devoted to their purchase? So far as machinery and other intermediate goods are concerned, it is to a large extent savings effected by business, rather than by the individual shareholders which furnish the market for purchasing it. It may be that more than the average proportion of profits is devoted to, in effect, increasing the capital of the business in prosperous times, but that does not seem to be the author's point. He wants businesses to disburse the maximum profits, and appears to assume that the shareholders are going to spend it all—at all events nothing is said about the possibility of their not doing so.

One feels some doubt whether the arithmetical calculations in Chapters II relating to a community of a few people, useful so far as they go, have not given a bias in favour of regarding industry as the production of goods which are bought outright and consumed quickly. When one thinks of the businesses of building houses and railways, opening up new mines, etc., and pictures them in a state of accelerated activity, the problem seems to be not why the product gets on the market before the wages and profits have got there, but the reverse. This aspect of the situation is one which requires more attention than is given to it.

One may venture to suggest that what is first required is an analysis of what happens in the case of a smoothly growing community—one which maintains a certain rate of growth for a substantial time. Even there purely arithmetical methods will be found to be full of difficulty, and the disturbing effect of an acceleration or retardation of the rate of growth introduces still more complexity.

The book is to be commended as stimulating and thought-provoking, even if one feels that there is still a great deal more to be said.

C. F. BICKERDIKE

British Prices and Business Cycles, 1779–1850 (*The Review of Economic Statistics*, Prel. Vol. V., Supplement). By N. J. SILBERLING. (Harvard Economic Service: Cambridge, Mass., U.S.A. October, 1923.)

HERE, in forty double-column pages, is the most important contribution to the statistical history of the transition from the eighteenth to the nineteenth centuries which has been made for a very long time. Professor Silberling has got at new sources of information for commodity prices: the Governor of the Bank of England has helped him to a new series of figures for the Bank's

holdings of Exchequer and trade bills; and he has made much fuller use than any previous writer of these statistics of country-bank-notes, which were issued as Parliamentary Papers at irregular intervals, after the notes became liable to stamping for excise duty, in 1804–5.

The new series of commodity prices come from two old Price Current volumes in the Library of the Board of Trade, two in the British Museum, and one in the Guildhall Library. Prices (as in Tooke) were often quoted in bond, and, where they were not, steps have been taken to eliminate the duty element in the price. A hundred and fifteen price series were copied and charted; but eighty were rejected, either because of defects in the series; because the commodity was liable to some abnormal cause or causes of fluctuation; because its quality was inconstant; or because its price movements were adequately represented by an allied article for which a better series of figures was at hand (*e.g.* pot ashes and pearl ashes). There remained thirty-five thoroughly representative commodities of "independent types" with excellent continuous quotations, or quotations so nearly continuous as to allow of easy interpolation. From these a quarterly, not an annual, index-number has been calculated, on the basis of the geometric mean and without weighting. A second, weighted, "cost of living" number has also been taken out "for one group of articles which represent in a fair degree the expenditures of British working-class families." Great care has been taken, and, as will appear, with interesting results, to make the main index-number "represent more or less equally the important geographic divisions outside Great Britain," in order to exclude undue influence from one area perhaps affected by war or special economic conditions. Two sub-groups have also been made from the thirty-five commodities: one containing British goods and goods in whose price freight was a small element; the other, goods bearing "relatively heavy freight charges." A comparison of these sub-groups suggests to Professor Silberling—and to his reviewer—"that increased costs of transportation were by no means so important a factor in creating the high war-time price level as Thomas Tooke . . . seems to have believed."

The main curve naturally comes into comparison with that of Jevons, the structure of which Professor Silberling criticises rather severely—mainly because of bad grouping and "haphazard weighting." The criticisms are for statisticians, not for the present reviewer, to discuss. But as Jevons, for the early period, took his prices "mostly from Tooke's tables" (*Investiga-*

tions, p. 142), and as Professor Silberling has a wider and more carefully selected basis, a comparison is interesting. There is, however, only one heavily marked divergence. Jevons made the peak-years 1809–10; Professor Silberling makes them 1813–14 and explains the reason. Baltic markets were specially disturbed in 1809–10, and Tooke's figures assign undue importance to Baltic produce; for Tooke—as Professor Silberling might have noted but does not—was in the Baltic trade.

Professor Silberling's cost of living index-numbers, based on a weighting which assigns 42 to food, 8 to clothing materials and 6 to fuel and light, yields a most challenging result when set side by side with Professor Bowley's 1899 calculation of annual agricultural earnings—which Professor Silberling, following, as one supposes, American usage, calls "wages." Between the most certain early dates of the earnings calculation, 1780–90 and 1823–33, the curves show a movement definitely favourable to the—of course "imaginary"—average agricultural earner of England and Wales; "no little improvement in the material condition of a considerable social group," as Professor Silberling puts it. This is not the conventional account of what was happening between these dates (see, for example, Mr. and Mrs. Hammond's *Village Labourer*), although vital statistics and some other classes of evidence, which there is not room to discuss here, do, in fact, give some support to it. Perhaps Professor Bowley will have something to say to it from the statistical side.

In a second section the commodity index-number is correlated, first with bankruptcy statistics; next with Bank of England notes outstanding and with Bank of England total advances; then with Bank of England discounts of commercial paper, 1794–1830, and with country-bank-notes stamped 1806–25, the one period for which these last most important figures are available. From this study of the business cycle perhaps the most important results are, first, "that the major variations in prices precede those of Bank advances almost without exception" (which fits in with modern experience, exonerates the Bank from liability for credit inflation to some extent, and justifies its contemporary claim that it stepped in to give help when markets were failing); second, that the peaks of country-bank-note issue, in these critical nineteen years, "were simultaneous with or preceded" price peaks, as one would have guessed. Some important studies of bills discounted and discount rates from 1830 to 1850 conclude the work.

It has seemed best to make the review simply a summary of

the contents of this valuable monograph. The monograph is not on sale, and yet every economist and modern economic historian should have it. It gives him for his study of the economic life of a century ago quantitative results of a kind not always accessible in equal bulk and precision, for his study of contemporary affairs. Might one appeal to Harvard to reprint and put it on the market? Few of us can find $100 per annum and so acquire it as subscribers to the Harvard Economic Service.

J. H. CLAPHAM

Money: its Connexion with Rising and Falling Prices. By EDWIN CANNAN. (P. S. King & Son, Ltd. 4th Edition. viii + 106 pp. 3*s.* 6*d.* net.)

IT is one of the very agreeable consequences of what Dr. Cannan calls the "very tolerable compromise" between the boom prices of 1920 and those of the pre-war era that the present edition of *Money* should contain twenty more pages of most interesting matter than did the third edition of 1921 and yet be sold at the same price. For all that, the present reviewer regrets the omission of some of the contents of the previous edition, *e.g.* the section there headed "Erroneous Explanations of the Rise of Prices in 1914–20." It is by no means clear that the attribution of the rise in prices to increase of bank deposits "has now been so completely discredited . . . that to go on refuting it would be flogging a dead horse." Is not the dead horse of Dr. Cannan's phrase the gallant steed upon which the author of a *Tract on Monetary Reform* is seated at the present moment? Be that as it may, Dr. Cannan's new edition is important upon two grounds.

Firstly, it contains the substance of the important paper on "The Application of the Apparatus of Supply and Demand to Units of Currency" which appeared in this JOURNAL in December 1921. In incorporating the distinction between intension and extension of demand into monetary literature, Dr. Cannan has permanently enriched monetary science, although the germ of the later treatment of the point was already contained in the remarks upon elasticity of demand for coin on pp. 18–19, the importance of which had been somewhat overlooked. Secondly, Dr. Cannan has supplied, in his new section on "Banks and Prices" (pp. 79–85) an important criticism of the view that bank deposits are "money," and shows that the aggregate money spending is not increased if deposits lent to banks are re-lent by

them. If the opposite view is taken, one is forced to suppose that banks "make something out of nothing, and the only wonder is that they use their power with extraordinary moderation." Of course distinguished authorities *do* attribute these miraculous powers to banking institutions, their moderation being explained by the fact that bankers must maintain a conventional ratio between "cash" and deposits. But these authorities have evidently not fully grasped the lesson of Germany, where unparalleled increase in cash reserves has not resulted even in a proportionate increase of deposits—due to the fear of depositors that bank deposits were not "wertbeständig" even for short periods—whilst in Austria the cessation of inflation has led to renewed confidence and to a rise in deposits. If there is anything in the idea that "cash" limits deposits, instead of deposits determining the volume of cash which bankers find it desirable to retain, the whole recent banking experience of Austria and of Germany should have been the reverse of what it actually was.

Dr. Cannan throws light upon the real nature of bank deposits by an ingenious simile based on the death duty returns. Loans by and to banks would not "cancel out" if everyone died at the same time: those in credit at their banker would have a taxable credit balance, those indebted to bankers would have an estate equal to the difference between property acquired by the loan and the loan itself, provided they possessed no other property at all. This estate would of course be negative if the value of the property had fallen below the value of the bank loan.

The influence which bankers exert on prices is due, according to Dr. Cannan, to changes which their varying demands for cash exert on the value of money When bankers increase their cash balances they increase the demand for money, and this tends to lower prices. Lower prices will result even if the total stock of cash in the community remains the same, because, as the author points out expressly in another connection, "we must not expect to find evidence of increased or decreased willingness to hold currency in actually increased or decreased stocks of currency. If the total is a fixed amount it cannot vary in that way. The evidence is to be looked for in the fact that more or less goods are actually being given for the unit of currency. We can have an increased and a decreased demand for houses without finding any alteration in the number or size of houses." In the particular case of bankers, increased willingness to hold currency shows itself in a rising bank-rate.

In a rewritten third section dealing with "The Recent Histori-

cal Experience" the author deals with the Cunliffe Report and the wisdom of the policy pursued since the issue of the famous Treasury Minute of December 15, 1919. Dr. Cannan believes that the evils of deflation are in any case less than those of inflation: what inconveniences there are "must be regarded in the same light as those which a spendthrift or a drunkard is rightly exhorted by his friends to face like a man." Further, stabilisation at or near the level of *highest* prices was impossible: the mere cessation of inflation was quite sufficient to cause a slump. Finally, as already indicated, Professor Cannan thinks that, as the value of gold is still much below pre-war level, a return to gold payments is a "very tolerable compromise."

The London and the Cambridge schools of economists are engaged in fruitful co-operation in many fields of intellectual endeavour: over currency theory and policy they meet in battle. Each school is fortunate in the possession of a leader of brilliance: how happy the country which in the pursuit of monetary truth can draw upon a controversial literature rich in wit as well as wisdom!

T. E. GREGORY

Valutafrage und öffentliche Finanzen in Deutschland. Von WALTER LOTZ. (*Schriften des vereins für Sozialpolitik.* 164 *Band.*) (Munich: Duncker und Humblot. 1923. Pp. 118.)

Markkurs, Reparationen und russisches Geschäft. Von JULIUS WOLF. (*Finanz- und Volkswirtschaftliche Zeitfragen.* 81 *Heft.*) (Stuttgart: Ferdinand Enke, 1922. Pp. 81.)

Germany and Her Debts: A Critical Examination of the Reparation Problem. By L. L. B. ANGAS. (London: Harry J. Simmonds, 1923. Pp. xxviii + 158.)

THE indemnity question threatens the economist with a new and alarmingly prolific literature. And yet, from the economic standpoint, the issue is simple enough. Given a certain population, with a given standard of skill and a certain store of inherited and accumulated wealth, how much can that population be induced to provide in the way of tribute? Two essentially practical points rise: the willingness to pay and the capacity to produce, and the means to maximise both. The determination of these issues by politicians requires, so it seems, an endless series of conferences, "all successful," an expensive advisory and supervisory body of experts, immense expenditure on forces of occupation, armed and unarmed, and, lastly, an infinite incapacity for seeing that you cannot eat your cake and have it.

The books under review are primarily concerned, not with the productive aspects of the indemnity, but with its currency side. Have the Allies ruined the mark-currency by their folly, or have the Germans ruined their currency in order to evade the payment of Reparations? This is equivalent to the issue: supposing the Allies not to have demanded any Reparations-payments at all, would the mark be in its present position? The answer depends on the assumptions made as to the tax policy of the German Government. The mere absence of a certain type of expenditure does not necessarily prove that the remaining expenditure would have been covered by taxation, other than that involved in any case in inflation. The temptation to lighten the burden of direct taxation by reducing the real value of national debts is one which is not easily resisted, especially by a revolutionary Government. But however that may be, it is clear that a Government subject to a process of constant terrorisation, and asked to provide large sums in a relatively short time, is hardly likely to in a position to exercise philosophic discrimination as to the sources of revenue. Thus, although it is impossible to measure the *magnitude* of the responsibility of Allied statesmanship, it is clear that this has been a considerable contributory factor in the present collapse, which looks like solving the whole issue in a very drastic fashion. (Written at the beginning of October.)

Prof. Lotz is one of the relatively few German economists who have not been led into monetary mysticism under the influence of Knapp's theories. His little book in the space of 117 pages, deals fully with the history of the indemnity question up to the spring of 1923, and is therefore valuable in bringing the sordid tale more or less up to date. Here he offers nothing essentially new, though for English readers it will be useful to have in fair detail the German as well as the Allied version of what Germany has paid.

The author is critical both of the German financial policy and of the stabilisation schemes propounded in the autumn of 1922 by the international experts. The German funded debt is being reduced whilst the floating debt is enormously increased (p. 8); the technical advice proffered to German statesmen has at times been most unsatisfactory (p. 48); there is a great deal to be said for the view that a return to gold payments or a gold exchange standard in 1918 would have prevented most of the financial difficulties from which Germany has since suffered. This is no doubt true: the only question is whether such a step

was likely to have been successful in view of the political situation, and though Prof. Lotz is clearly of opinion that such a policy should have been attempted, he does not deal directly with the chances of its success, had it been tried. It would certainly have brought the question of Germany's real capacity to pay to a head almost at once; but it would have prevented Germany's fictitious prosperity being made the basis of inferences unfavourable to Germany's good faith, whilst it might have smoothed the way to an international loan. Further, whatever open taxation might have been enforced, it could hardly have equalled in savage effectiveness the taxation borne by the middle classes since 1918 through inflation.

The Commission of International Experts is criticised in the following terms: "The reports of the foreign experts are in error in depriving the Reichsbank of part of its gold: in not thoroughly disposing of the non-interest-bearing floating debt of Germany: in the proposal to create a special institution as currency-office or gold-bank, thereby interfering with the unity of action of the Reichsbank; lastly, in that an end is not made of the abuse of the Darlehnskassenscheine" (p. 110). This summary does not do justice to Prof. Lotz's criticisms, of which a word more must be said. He stresses particularly the impossibility of the cessation of note-issue against Treasury Bills unless the bank is previously solvent, but this would be impossible unless the bank is relieved of the Treasury Bills it already holds. But an internal consolidation of the floating debt is impossible, "for if this consolidation were to take place from within, through Germany herself, this would mean that then the paper mark would be exchanged for an infinitesimal amount of its face value in gold. Such a drastic devaluation in a country with a highly developed credit system is a barbarity and a partial state bankruptcy." The reform should therefore be undertaken by means of a foreign loan. The Empire should convert its bills into five-year dollar bonds, "with the co-operation of a guarantee Syndicate in New York, London, Amsterdam, Scandinavia and Switzerland, which should buy mark-notes and transfers on Berlin at a fixed rate, the total proceeds of the new interest-bearing dollar loan to be used to buy back from the Reichsbank and in the market the total floating non-interest-bearing debt in paper marks at face value. The Reichsbank would receive foreign bills in place of Treasury Bills. The paid-in banknotes and the assets of the consortium intended for the extinction of the floating debt would be used to diminish the liabilities of the

Reichsbank, so far as guarantees against the re-issue of the old notes have been given."

The advantages of this plan do not seem to be very clear. (*a*) If the consortium buys up mark-notes at a *fixed price*, retires Treasury Bills and burns the notes, the subsequent effect will be appreciation of currency, a higher exchange rate and a deflation crisis. (*b*) Or the exchange rate is not to be allowed to rise, in which case there will have to be a new issue of notes, backed, it is true, no longer by Treasury Bills, but by gold, foreign bills, or internal bills. In this case the mark will be permanently devaluated at the stabilisation rates. (*c*) The Government will no longer owe money to the Reichsbank, but will owe dollars to the Syndicate. Apart from the improbability that such a Syndicate would be prepared to put up the money, the cost to the Government would probably be greater than if it took over the existing Treasury Bills, giving dollar bonds in return, meeting interest and sinking fund charges on them, and allowing the Reichsbank to sell these bonds as it liked at the new stabilisation price to investors either for foreign currency or for stabilised marks. It may be rough justice to devaluate, but there seems no real alternative left.

A word must be said in praise of the admirably objective tone in which Prof. Lotz has written, which makes his book a model for those who are concerned in highly controversial issues of this kind.

Prof. Wolf is troubled by no doubts as to the responsibility of the Allies: the Allies have done their best to ruin the mark, and with it their chance of Reparations. It does not follow that because this is so, therefore the ruin of the mark is to be ascribed to Allied action. It is altogether extravagant to assert, as Prof. Wolf does, that the productive capacity of Germany is indicated by the mark exchange (p. 7), though a ruined currency does certainly impair productivity. Nor is it quite as obvious as Prof. Wolf would seem to think "that even a country with orderly state finances can only pay tribute with an 'active' balance of trade." This is true if it is taken in the sense that A equals A. When a country pays tribute it *has* an "active" balance of trade, but this is by no means the same thing as saying that an active balance of trade cannot be obtained.

This brings up the whole question of the export surplus which forms the scientific core of Mr. Angas's book.

It is to be regretted that Mr. Angas should not have confined his work to the really important economic questions which he

has raised. As it is, a fair proportion of his pages are occupied with political aspects which do not lend themselves easily to objectivity, and it is not easy to excuse in a serious work phrases such as that "we really should give our German, or rather our Jewish, cousins a little more credit for cunning."

However, Mr. Angas has a good deal to say on the scientific aspects of the question which is worth consideration, though not necessarily winning assent. His main attack is on the "Fallacy of the Pre-war Export Quantum" (pp. 38 *et seq.*), *i. e.* the view that Germany cannot increase her exports beyond what they were before the war. Mr. Angas rightly argues that there is no absolute export surplus which exists once and for all, though it is doubtful whether the grounds which he assigns for this view are quite secure. On p. 39 we read that "all that is necessary for Germany to secure a larger volume of exports is for the German Government to take the trouble regularly to earn, or to raise by taxation, or to borrow, a sufficient volume of domestic money and to spend it on foreign exchange." This I believe to be a perfectly correct view of the situation, but on p. 17 Mr. Angas has expressed a view which is inconsistent, as I think, with the view just quoted, in saying at that place that "the theory of the matter is that, in order to go on paying for invisible imports such as 'reparations' (or, if you like, the cancellation of Reparation debts) the currency of the paying country must remain almost continually undervalued externally." This, again, is rather inconsistent with what is said on p. 16, where it is argued that, *unless* there is speculation in a currency, "the after-effects of these momentarily engendered exports on the exchanges would . . . tend very soon to improve the German exchanges and to check German exportation. . . . When eventually the new mass of artificially engendered German exports came to be paid for by the foreign buyers over the foreign exchanges, marks would be heavily wanted by foreigners and the German exchange would improve. Such improvement would tend to check German exports and reduce the export surplus. A disconcerting point!" Assuming a general stabilisation of the mark, it is very doubtful whether a permanent undervaluation of German currency is possible: nor is it really necessary for the end in view. The real problem is not one of exports by Germany, but of production and taxation in Germany on the one hand and of willingness to receive German goods on the other. The absurd fuss which is just now being made over the disposal of the sequestrated Ruhr goods by the French well illustrates the fatuity of inter-allied policy

whenever a demand to make Germany pay is really made. Mr. Angas thinks that the German export surplus already exists and blames the price policy of the Syndicates and the official licensing authorities for keeping German export prices up; German exports would be much greater if freedom of sale were permitted. This is no doubt true, but the inference that, therefore, the actual amounts of foreign currency which Germany could pay are reduced, is, as Mr. Angas says, a moot point (p. 23). Of course, if creditors can pay their debtors in depreciating currency, they will order more goods, but the amount of foreign money which could in this case be bought by the German Government through the taxation of exporters would still fall with every fall of the mark, and that fall could hardly be checked permanently by importers in foreign countries having to buy mark balances to pay for their German goods, though the descent to worthlessness might be somewhat smoothed out.

Mr. Angas also criticises the Keynes-Cassel-Brand scheme, though he agrees with the underlying principle. He argues that stabilisation of the exchange should *follow* and not *precede* internal stabilisation, because he thinks that an attempt to stop inflation in Germany would at once produce a devaluation crisis, and the fall in prices would necessarily lead to a purchasing power parity rate inconsistent with the stabilisation rate previously adopted. This objection, I think, depends partly on the stabilisation rate chosen, for if the stabilisation rate is based on internal prices at the moment of stabilisation, the margin between the prices at the moment of stabilisation and those which would follow on a devaluation crisis would be narrowed. And though it is true that the stabilisation rate itself might have to be altered somewhat, yet I think that the knowledge that a disparity of any magnitude between internal and external prices would be followed by offers of foreign currency and an increase in domestic currency would prevent the fall, as a consequence of a devaluation crisis, being very considerable.

T. E. GREGORY

Essays in Applied Economics. By A. C. PIGOU, Professor of Economics in the University of Cambridge. (London: P. S. King & Son. 1923. Pp. 198, 8vo.)

THE title of Professor Pigou's latest book will be unpleasing to those who, like Huxley, wish that the phrase "applied science" had never been invented. "It suggests," wrote Huxley, "that there is a sort of scientific knowledge of direct practical use which can be studied apart from another sort of scientific knowledge,

which is of no practical utility and which is pure science. But there is no more complete fallacy than this. What people call applied science is nothing but the application of pure science to particular classes of problems. It consists of deductions from these general principles, established by reasoning and observation, which constitute pure science. No one can safely make these deductions until he has a firm grasp of the principles; and he can obtain that grasp only by personal experience of the operations of observation and of reasoning on which they are founded."

Whatever may be said in favour of such distinctions as pure and applied mathematics, there seem to be substantial objections to the phrases "applied economics" and "applied statistics." Not only do they remind one of the signboard of the "practical tailor," which sets one wondering what an unpractical tailor may be, but they convey a suggestion that the results of applied economics are scientifically established and cannot be gainsaid. Mathematics applied to astronomy enables us to predict an eclipse with unerring certainty. Attempts to apply economics sometimes begin with abstractions and symbols in the approved "pure theory" style, introduce some concrete facts by way of "allowing for friction," and ultimately present us with conclusions which will not hold water because important factors have been left out or not given their proper weight. This is perhaps the main cause of the little respect which men of business sometimes express for economics. If solutions of particular problems are put forward which they see to be imperfect solutions, they inveigh against the science itself instead of understanding that the investigator is correct as far as he goes, but has not gone far enough in his search for the factors which come into play. Happily, to quarrel with Professor Pigou's title is not to quarrel with his book. His "firm grasp of the principles" and his wide philosophic outlook make one pity the rash critic who should attempt to pick holes in his deductive reasoning. Opinions may differ upon such a dictum as we find on his first page, that "probably in our secret thought . . . we should recognise that our own interests have no right to rank, as guides to action, above the equivalent and equally certain interests of others"; and when we are told that our giving should be constructive, should be so devised as to evoke in the recipient a spirit of co-operation rather than one of mere passive receptivity, and should be given as from friend to friend, we may fairly ask whether all this is applied economics or simple ethics.

Of the sixteen essays here collected three have appeared in the Economic Journal, three have not been previously published.

and the remainder have seen the light in various magazines. They cover a variety of topics, and it is needless to say that they illuminate them all and frequently offer considerations of importance which might not occur to less subtle thinkers. Most of them are addressed to persons who, without necessarily possessing a specialist training in economics, are interested in the application of economic principles to current social problems. Unlike the "Ode to Posterity," they will undoubtedly arrive at their address, and will furnish much valuable assistance to those who wish to enlighten themselves upon the subjects with which they deal.

The three Essays which are new are on "Employers and Economic Chivalry," "Small Holdings," and "The Concentration of Population." The second of these exhibits Professor Pigou at his best. Its conclusion is that "these considerations, *so far as they go*, suggest that the State would do well to encourage small tenants rather than small owners, even though there were no difference between the expense involved in the two policies." The words which I have italicised show that Professor Pigou is of course fully alive to the possible fallibility of applied economics. Economics, like tools, are made to be used or applied, and if they are employed upon imperfect materials may give faulty results. It would be foolish to impeach the utility of the tool on this ground. Its indispensable value is abundantly manifested in these Essays.

HENRY HIGGS

Social and Economic Conditions in the Dominion of Canada. Ed. by W. P. M. KENNEDY. (The Annals of the American Academy of Political and Social Science, Philadelphia, 1923.)

PROFESSOR KENNEDY of Toronto University is heartily to be congratulated on the contents of the volume that he has got together for the American Academy. In spite of its mass of information the volume, as a whole, strikes a very human note; and tables of statistics, whilst serving to illustrate, never dominate the accompanying text. The secret of this success lies partly in the fact that each contributor has had full freedom to express his own views in his own manner. The result is sometimes not devoid of piquancy. Thus two articles, standing side by side, deal with the tariff question from different standpoints.

It is impossible within the compass of a review to deal with the very varied material here provided. Our only quarrel with these chapters is that too often they are disappointingly short,

more than fifty separate articles being contained in some three hundred pages. In the first section the problems of population and immigration are dealt with. In the opening page the Dominion statistician is able to claim for Canada the credit of having been the first country in modern times to take a census of its population; the census of 1665 having been repeated at more or less regular intervals during the next hundred years. A significant fact to be noted, in considering the growth of population in Canada, is the manner in which urban growth has "overshot" rural, even during the period that witnessed the settlement of the west. Whereas forty years ago the towns and cities accounted for only fourteen per cent. of the population, they now account for about half. As is right, in this portion of the volume Quebec takes the first place. Two high authorities are able to sound the praises of their countrymen, inside and outside their native province. Assuredly no people has ever with more success laid to heart the precept, "Be fruitful and multiply."

Another section deals with the resources of Canada, agricultural, mineral, the forests and forest industries, the fisheries, and water powers. This leads to a discussion of industrial research and education, primary, secondary and higher. The Canadian national railways, banking, comparative prices in Canada and the United States, foreign trade, with a general review and detailed discussions on the movement of capital, essential imports and the marketing of wheat form a further section, followed by articles on the Tariff, the British Preference, the Budgetary System, War Finance, and Dominion, Provincial and Municipal Taxation.

The way is then clear for several articles of especial interest, dealing more directly with the human factor in Canadian life. Very striking is the picture drawn by Mr. W. C. Good, M.P., in "Canada's Rural Problem," adopting the conclusions of another most competent observer, of the change for the worse that has taken place in the old country districts. "Even in the rural districts of the far east, there was beginning a foreign invasion that was quietly substituting Slavic for Anglo-Saxon stock." Near Montreal "the old community life was at an end, and lifelong neighbours had been scattered to the four winds." In eastern and old Ontario the story is the same. "Where are the old one hundred and two hundred acre farms of a generation ago? Gone! Now market-gardens and orchards for miles, and, beyond, farms; but farms held by tenants, owners English or Belgian Syndicates. And the old home life . . . hardly recognisable." In Western

Ontario, "Where have the farmers gone? To the north-west and to the cities." Even in southern Manitoba we find "the villages are stagnant and in many parts the land yielding less and less every year, and in some districts seeded down with noxious weeds." In the new west we are told of a farm of sixty-four thousand acres, owned by an English syndicate under the direction of a highly skilled manager; the farm to be worked in sixty-four units of a thousand acres each. "But what of life in that community, even if the farm succeeds financially? Ever-changing gangs of men boarded in the Company's houses—camp life rather than home life. Suppose a good wage was paid, a good house provided, would you, my farmer friend, choose to establish a home for your family under such conditions? If you incur the foreman's displeasure your tenure of your home would be short. Then what about Church and School and social life?"

As is natural, in Alberta and British Columbia the same lesson is still more vividly enforced. "Even in the rural districts Canada to-day is not the Canada of twenty years ago." "In its broad outlines and viewed from the standpoint of the nation, the problem is pretty much the same in all parts of Canada, pretty much the same, indeed, throughout all English-speaking countries."

The problem has never been better stated than in the Report of the United States Country Life Commission:

"The underlying problem is to develop and maintain on our farms a civilisation in full harmony with the best American ideals. To build up and retain this civilisation means, first of all, that the business of agriculture must be made to yield a reasonable return to those who follow it intelligently; and life on the farm must be made permanently satisfying to intelligent progressive people. The work before us, therefore, is nothing more or less than the gradual rebuilding of a new agriculture and new rural life."

In President Roosevelt's words: "Agriculture is not the whole of country life. The great rural interests are human interests, and good crops are of little value to the farmer unless they open the door to a good kind of life on the farm."

It is considerations such as these that have led to the various devices for "Better business" as well as "Better farming," of which the most conspicuous is the agricultural co-operation in the Canadian West described with great clarity and fullness of detail by Professor C. R. Fay of Toronto University. The conclusion is, that while "the necessities of a new province

justify the largeness of the part played by the Government in the initial stages, any slackening of endeavour towards the attainment of independence would be prejudicial to the spirit of self-help through voluntary association which is the hall-mark of genuine co-operation."

But the farmer, rightly or wrongly, believes that more is at fault than can be remedied by his own economic efforts. Hence his intrusion into the field of politics, described and justified by Mr. H. Staples. Methods of taxation and the consequences of the tariff affect him more closely, it must be admitted, than they affect other classes of the community.

Still, with much to trouble and perplex in the farmer's position, we may adopt the note of hope sounded by Mr. Good: "The welding process is on. Group spirit is accumulating. Farmers as individuals will become less independent; farmers as a class will become more independent. Evidences of personal and group power, large grasp and achievement will be outstanding. In reality the farmer will be seen coming into his own. Leaders of this awakened rural manhood must be clear-thinking, direct and of superior intelligence; and their foundations must be laid in a sure understanding of economic and social laws and of folk-psychology superimposed on reliable farm knowledge."

The last portion of the volume deals with various problems connected with Labour. From the article on the Protection of Workers in Industry we gather that, whilst there is a general desire to level up legislation to a common standard, provincial autonomy is still some check to such uniformity. We note in the article on the Labour Movement that Trade Unionism "furnishes to-day one of the most interesting fields in which to study the evolution of Canadian institutions under the reaction of influences from Great Britain, bound to us by a political tie, and from the United States, so strong by economic position." The article on Arbitration and Conciliation has suggestive remarks on the Industrial Disputes Investigation Act of 1907, which has attracted so much attention. It would seem that, so far at least as the coal-mining industry is concerned, it has not been very successful in averting strikes. "What the official reports of its working go to prove is that when the parties to a dispute are well disposed towards the Act it can serve a useful function. . . . Where there is on either side a deep-seated resentment with economic conditions, compulsion has proved on both political and economic grounds a futile proceeding, leading in the long run to contempt for the law. . . . It must not be forgotten that arbitration

assumes the general *status quo* of industry and can only function where neither party violently objects to it." The article on Political Developments within the Labour Movement in Canada further emphasises the importance of the British example in influencing Canadian ideals.

Even from this inadequate survey it may perhaps be gathered how useful this volume will be to anyone who wishes to attend the forthcoming meeting of the British Association with some knowledge of the problems, economic and social, of our sister nation.

H. E. EGERTON

Wages in the Coal Industry. By J. W. F. ROWE. (London: King, 1923. Pp. viii + 174.)

IN spite of the amount of discussion that has taken place on the subject of miners' wages within the last few years, there are perhaps few industrial matters upon which there is still so much confusion and ignorance. This is not surprising, as the subject is extraordinarily difficult and complex. The majority of the miners themselves probably do not thoroughly understand the methods by which their wages are calculated, and, as far as my own experience goes, very few of them are able to give a clear and satisfactory explanation to the layman.

Mr. Rowe has attempted a very necessary piece of work, and he is to be congratulated on the care and skill with which he has carried out his inquiry and presented his results. .His study covers the period 1886 to 1922, and he has confined himself to the wages of adult underground workers. One result of his researches is to show, as might have been anticipated, that there is no one method of calculating miners' wages; and more than this, that there are constant forces at work (such as the relative bargaining strength of miners and mine-owners) which have the effect of making the actual wages received sometimes more and at other times less than they should be according to the basis on which they are calculated. They increase or diminish in a different proportion to rates, and in fact they rarely seem to work out according to plan. The complexity of the problem of estimating changes in wages during the period under consideration and of drawing conclusions from the statistical evidence on the subject may be imagined when it is realised that conditions vary not only from coalfield to coalfield, but from colliery to colliery, that various classes of workers—skilled, semi-skilled and unskilled, with subdivisions of each class paid on different systems—are

working in the mines, that some men are paid by piece rates and others by day rates, that there are in many cases payments in kind and allowances which have to be considered in estimating total wages, and that even the definition of a shift varies from place to place—to mention only some of the complications.

In spite of these difficulties, Mr. Rowe has succeeded in giving probably as clear an account as is possible of the various methods of fixing miners' wages and of the changes which have taken place in wages since 1886. His conclusions, although they are for the most part extremely tentative, and necessarily so, owing to the conflicting nature of much of his material, appear to follow from the facts and figures given. The book is well furnished with statistical tables, diagrams, and graphs, but I think the author might have made some parts of his subject clearer if he had worked out a few examples, showing the way in which wages are actually arrived at, so that the reader might have had before him typical cases in the various districts.

Chapter II contains an excellent account of the principal features of all the coalfields of Great Britain, as well as a useful sketch of the development of Trade Unionism among the miners. The question of wages naturally cannot be considered apart from questions of hours, and Chapter V deals with the Eight Hours Act of 1908 and the Seven Hours Act of 1919 and their effects. The same chapter also contains an account of the Minimum Wage Act of 1912 and a judicial estimate of its results. In fact, the whole tone of the book is highly judicial, and controversial subjects, where they arise, are handled with great impartiality.

In the final chapter the question of wage regulation in the future is considered. With regard to the miners' demands for greater uniformity as to wages, the author thinks that while this is not unattainable, it is unattainable under the present system. The arguments for and against nationalisation are rather sketchily dealt with. The author does not come down on either side, and the subject might with advantage have been dealt with more fully. The opinion is expressed that it was a pity the miners' demand in 1921 for a wages pool was not discussed on its merits, though the difficulties of their scheme are fully recognised. Of the Act of 1921 the author says little, on the ground that it is an experiment still on trial. But he suggests that while the scheme is in many ways unsatisfactory to both miners and mine-owners, it may mark an advance from the point of view of the community.

Mr. Rowe has written a useful book.

H. SANDERSON FURNISS

Social Aspects of Industrial Problems. By GERTRUDE WILLIAMS, B.A. (London: P. S. King & Son, 1923. Pp. xii + 260. Price 6*s.*)

THIS is a well-written book which will be useful to many students and teachers, as bringing together within one binding much that is scattered over rather a wide field. It does not offer anything very new, nor is its title a fair guide to what it contains; for, except perhaps in the first chapter, Mrs. Williams confines herself to a descriptive statement of some of the chief industrial problems of the day, with an analysis of their probable causes and of any measures that are or might be taken to deal with them. There is not, however, any special reference to the "social aspects" of these problems.

Mrs. Williams gives us at the outset as good a statement as perhaps any that has yet been written of the chief limitations to the doctrine that the equilibrium of individual demand and supply is the point of maximum social satisfaction. She then proceeds to sketch the principal features of the modern organisation of industry, describing the rise of the Joint-stock Company and the Trust movement under the head of Capital. To Labour she devotes more space, giving an excellent survey of the more important changes in the Trade Union world which have occurred in the last few years, and describing the circumstances that led up to the Whitley Reports, the Councils which have resulted from these, and joint organisations of employers and employed generally.

A chapter on unemployment (which contains a great deal of matter ranging from the provisions of the Unemployment Insurance Acts to Mr. J. A. Hobson's views on under-consumption, for which, incidentally, Mrs. Williams has an heretical affection) is followed by one on Women in Industry, which grapples admirably with problems of equal pay for equal work, and family endowment and the like. The book ends with a chapter on Government and Industry which attempts the impossible and had better have been omitted.

There are a few minor blemishes on an otherwise meritorious volume. On p. 44 it is unwise to suggest that the pace of the combination movement will not slacken "even though the special circumstances of the war no longer exist," when in point of fact it *has* slackened. On p. 51 the name of the Imperial Tobacco Company is wrongly stated, and the date of the Royal Commission on Labour given on p. 77 is also incorrect. The

Match industry's unemployment insurance scheme referred to on p. 122 is a supplementary, not a special, scheme under the Act of 1920, and is therefore not held up by the suspension of special schemes. On p. 107 "the Strike Committee" is referred to as though we knew all about it, whereas no strike has yet been mentioned; and on p. 121 some industries are described as belonging to group (*b*) when nothing labelled (*a*) or (*b*) has preceded.

I do not know whether Mrs. Williams thinks her book impartial; but I am sure that those who do not share her point of view will not scruple to call it biassed.

BARBARA WOOTTON

Trade, Tariffs, and Transport in India. By K. T. SHAH. (London: P. S. King and Son, Ltd., 1923. Pp. 450.)

THE author is Professor of Economics in the University of Bombay. An earlier work of his on *Fifty Years of Indian Finance* was reviewed in a recent number of the JOURNAL.

Mr. Shah's political opinions are only important here in so far as they affect his views on economic questions. He is a strong Nationalist, though too well instructed to profess any belief in Mr. Ghandi's "Back to the Handloom" policy. He regards the existing Government as alien and unsympathetic, and the ally of the British manufacturers in exploiting a helpless dependency. In discussing his scheme to replace private enterprise by State industries he holds the main difficulty to be "the unavoidable suspicion which hangs upon a foreign Government with the antecedents of the Government of India," and the reluctance of the people to commit fresh responsibilities to "a proved traitor" (p. 193). In his evidence before the Mercantile Marine Commission he took up the same point, and expressed his own distrust of the British Administration "as regards the personnel, the motives, and the qualifications" (p. 434).

In Economics Mr. Shah is an advanced Socialist, who desires at the earliest possible moment to put an end to Capitalism, which he abhors. As a half-way house he would accept co-operative production, though he admits that "the history of such attempts in countries more advanced than our own makes very distressing reading to the co-operative enthusiast." But his real aim is collectivism, and he seems to believe that the advent of a purely Indian Government will produce all the conditions necessary to ensure its success. The ideal to be aimed at is a self-contained

India, fed, warmed, clad, and carried by the products of its own soil, and using up in its own State workshops and factories all the raw materials required. For moral reasons he is not anxious that India should attempt to sell largely in foreign markets. Foreign trade in his view is, as now conducted, the seed-bed of international strife. Ultimately, when all the backward countries have developed their own industries, such international exchange as continues to be really beneficial will be conducted by State agency under international agreements.

In support of his plea for State industries Mr. Shah adduces the fact that the Indian Government already conducts big industrial enterprises, such as the post office and to a large extent the railways. Railways and posts are public services in which the operations required can be in a great measure standardised. An honest bureaucracy can run them with success, and Mr. Shah can legitimately appeal to the experience of some European countries. But he never really faces the difficulties that beset State productive enterprises generally. He is not himself an admirer of the Indian railway administration, which he condemns as extravagant and careless as regards the development of Indian industries. In this connection he contrasts the failure of a Government "gravely interested in the financial success of the railways and so unable to adopt a (proper) railway rate-making policy," with the achievements in the same line "of a railway genius like the late Mr. Vanderbilt, who liquidated and reorganised the New York Central railroad into one of the richest and busiest lines of the world, if not quite the cheapest." Apparently all that is required is to substitute Indian for English agency to produce the organising ability, honesty, and enterprise needed to make State management of railways in India a great success. The Bombay Government and Municipality have recently embarked on a vast land reclamation and housing scheme, the latter being intended to supply mill hands with decent homes. But they have failed to produce sanitary houses that can be let at an economic rent, and this "is due partly to the department, which has yet to learn the lesson of rendering public service absolutely free from any search for private gain."

Foreign capital to a large amount is invested in India. Englishmen and Scotchmen own nearly all the mines and jute-mills, and conduct most of the banking business. Mr. Shah proposes to get rid of the foreign capitalist entirely, and to substitute Indian for British capital except in so far as it may still be necessary to borrow money from English investors. The latter is a legitimate ambition,

but the possibility of raising in India at all rapidly two-thirds of the 600 crores which the author considers to be required for the full development of Indian industries, not to speak of another 400 crores wanted for agriculture, is doubtful. In pursuit of his aim Mr. Shah seems to be ready to do more than attract capital. In a table on p. 190 he shows how 360 crores could be obtained. Of the total, 200 crores are to consist of "a portion of capital locked up with religious bodies and charitable endowments," and only 50 crores of increased bank deposits. One sympathises with the author's regret that so much capital should be locked up uselessly in the shape of jewels, etc., in Indian temples. But we are not told how the figure of 200 crores is arrived at, or how the custodians are to be induced to part with that large sum. It is also suggested that the capital available with Indian princes might be "requisitioned."

Protective tariffs are one weapon which Mr. Shah would use to promote the carrying out of his extensive programme for industrial development in India and the replacement of private enterprise by State production. The case for protection in India, and the limits within which it seems likely to be of use, were considered in a review of Professor Banerjea's work on the subject which appeared in a recent number of the JOURNAL, and it is useless to go over the same ground again. But it may be well to notice some of the specific proposals which Mr. Shah has embodied in a draft Bill. It may be said in passing that he regards the report of the Fiscal Commission with great contempt.

The Bill provides that, in the case of new industries necessary for national security or development, the State shall forthwith undertake them, or, if debarred from doing so for financial reasons, shall subsidise private enterprise for the purpose. A remission of half the import duty is allowed in the case of co-operative or collectivist production. Subsidies are only to be granted to Indian business concerns. No private enterprise connected with the exploitation of mineral resources is to be permitted unless three-fourths of its capital is Indian and its directors and managers are of native birth. No share in a company is to be transferred to a non-Indian without the written permission of the Tariff Board. A rebate of 10 per cent. is allowed in the case of goods carried in Indian-owned ships, to be increased to 20 per cent, if the ships were Indian built. It is part of Mr. Shah's plan that the Indian Government should own the ships, and that it should embark on a large shipbuilding programme. It is not very clear

how in a country where shipbuilding is practically non-existent it can expect to succeed where the United States have failed.

Owing to financial exigencies Customs duties have lately been pitched at rates which, considered as revenue taxes, are extraordinarily high. Mr. Shah proposes to raise the duty on sugar from 25 to 35 per cent., and to double those on oils. He would increase those on iron and steel from 10 to 20 per cent. The present import duty on cotton piece goods is 11 per cent., and there is an excise duty of 3½ per cent. It is proposed to abolish the latter, and to substitute for the former rates beginning at 5 per cent. for cloth made of yarn of ten counts and under, and gradually rising to 35, 40, and 50 per cent. for the higher counts. Obviously this scale is specially calculated to injure the English trade. The cases of sugar and oil were discussed in the review of Professor Banerjea's work. The increase of the duty on steel will only help the Tata Company, which is claiming a rise of 33⅓ per cent. Of its output 60 per cent. consists of steel rails, and under a contract which has still several years to run the whole of them are taken for the Indian railways. It is the only firm that produces steel in India, and for its sake all the firms in that country which use steel in construction work will be injured and the cost of the railways will be increased. As to the proposed cotton duties, Mr. Shah confirms what was stated in the former review as to the enormous profits earned by the Bombay mill-owners. He adds that "they have been criminally indifferent to improving the quality of the goods by proper attention to the raw material consumed and the machinery employed," and further that they failed to utilise the enormous protection given by the War to drive foreign goods out of the market, but were led "by capitalist greed and shortsightedness" to raise prices "so as to keep neck to neck with the foreign goods." Mr. Shah fails to explain how these grave defects will be cured by excluding foreign competition.

The book is far longer than was necessary for a full statement of the author's case. Thirty-seven pages are occupied by the schedule to the proposed Tariff Act. All the reader can desire to know is how Mr. Shah would deal with the leading articles of import and export. He cannot possibly care for a list of some eighty descriptions of manufactured steel and iron all to be taxed alike, or to know the treatment proposed for four different sorts of cowrie-shells.

The work is perhaps more interesting as a frank revelation of the tone of mind prevailing at present among many educated Indians than as an economic inquiry. Mr. Shah accepts the

present "racial animosity" or "hatred" as a reason for getting rid of the foreign capitalist, and does not, like the Fiscal Commission, regard it as a passing phase. Curiously enough, he combines this with a distant vision of human brotherhood. His scheme of economic construction probably interests him more for its moral than for its purely economic results. In considering it one must in fairness remember that he is not anxious for the accumulation of wealth, and would be satisfied if his State industries produced enough to give everybody a decent existence. Unfortunately it cannot be said that he has proved they would do so much.

J. M. Douie

Volkswirtschaftslehre. By Eugene Schwiedland. Vol. III. *Die Organisation des wirtschaftlichen Lebens.* (Stuttgart: W. Kohlhammer. Pp. iv + 400.)

Professor Schwiedland's third volume follows along the lines of the first two, which were noticed in the Economic Journal for September 1923, p. 387. It deals with the organisation of enterprise, labour, the means of exchange, and markets, and all the subjects on which the author touches in this, the concluding volume of his work, are handled in an attractive and informing fashion, though he is perhaps stronger on the descriptive than on the theoretic side. But throughout he attempts to weigh up all aspects of each problem. From this point of view, one of the best chapters in the book is that which considers private and public enterprise. Professor Schwiedland, after considering the advantages and disadvantages of each method, comes to the conclusion that on the whole private enterprise is likely to be more productive for the community than enterprises undertaken by the State. He is not blind, however, to the probable influences on industry of the existing burdensome public debts; he points out that in order to meet debt charges, Governments may well be forced to increase the number of State monopolies, purely for revenue purposes. Professor Schwiedland writes sympathetically and with comprehension on the part played by the entrepreneur in the economic activities of the community, and he shows that he has made a special study of the important publications on the subject issued in recent times.

The three chapters on problems connected with the currency are particularly useful for the light they throw on latter-day

controversies touching the value of money. They furnish a handy conspectus of the opinions of Menger, Cassel, Knapp, and Neurath. Of the four sections into which the book is divided, it may be said that the third, which considers the means of exchange, is perhaps the most informing.

The most interesting chapter is the last. It is a survey of modern society, and an evaluation of economic forces. Schwiedland believes that the existing uneven distribution of wealth is bad for society as a whole; he deplores the gradual disappearance, in continental countries at any rate, of the middle classes, which he regards as a necessity for the social organism; he declares that it is the duty of the State in its own interest to look after the ideal requirements of the workers in the way of education, social insurance, trade-union policy, and so forth; and he deplores the fact that while the material advances of the last hundred years have been wonderful, they have not kept pace with what one English poet has called "the things that are more excellent"—inward peace, personal idealism, and hope. He deplores the lack of harmony and the prevalence of hurry in modern life, and he suggests that the cultivation of the social sense, and particularly of social service, is one of the prime needs of the age.

M. EPSTEIN

Die Klassen und die Gesellschaft (*Classes and Society*). By P. E. FAHLBECK. (Jena: G. Fischer. 1923. Pp. 348, 8vo.)

THE Swedish scholar Pontus E. Fahlbeck, recently deceased, makes an attempt in this work to follow up the historical development of social distinctions in rank, class and caste. He was able to finish his researches about classical antiquity and he made a good beginning at the study of the Middle Ages, of which this book contains several chapters.

As the result of his studies he reaches certain general conclusions. Thus, he finds that there is one great epoch, in which the differences of classes increase, and another epoch of regression, in which the distinctions fade. At first, in the early stages of development, the formation of higher classes creates economic differences, which in their turn serve to increase the power of the superior castes. The importance of wealth remains prominent in the second epoch of the progressive levelling of the old castes, when, within democratic tendencies, riches remain, if not the only,

certainly the principal means of distinction. But in early society some principle of class formation or hierarchy must remain. To create an undifferentiated dead level of society is one of the futile illusions of Socialism. In general Professor Fahlbeck characterised Socialistic doctrine as a systematised complex of dreams and desires. For the very essence of civilisation in progress consists in the division of social functions, in the formation of professions. And according to the social value of these functions the caste system is formed. It is a great pity that Professor Fahlbeck passed away before having had time to bring to a conclusion his comprehensive historical studies. His younger compatriot, Professor Rudolf Kjellén, also recently deceased, was able by his power of condensation to finish his studies in economic geography and policies. I believe, that with his ability for condensed expression, Professor Kjellén would have formulated Fahlbeck's results by saying, that the rights and prerogatives of certain classes depend upon real services, but that when the obligation to serve the community becomes atrophied, the prerogatives become abuse and robbery, and that in this case the justification and the future possibilities of class differentiation are altogether lost.

EUGÈNE SCHWIEDLAND

Beiträge zur Wirtschaftsgeschichte (*Contributions to Economic History*). By KARL BÜCHER. (Tübingen: Laupp publ. 1922. Pp. 462, gr. 8vo.)

CHARLES BÜCHER is among the first living economists of Germany. His theories are always founded not only on a complete knowledge and understanding of economic history, but on close observation of contemporary facts as well.

His recent volume consists of Contributions to the Economic History of Classical Antiquity and of the Middle Ages. The most outstanding part of the book is the vivid description of the industries of Greece and of the revolt of the Roman slaves between 143 and 129 B.C. Extremely interesting too is the account given of the obligatory price norms of Diocletian, 301 A.C. The remainder of the work is of importance for German readers mainly.

There is no need to emphasise the fact that—as always the case with the writings of this great master—the work is brilliantly written as well as of great scientific value.

EUGÈNE SCHWIEDLAND

Gesammelte Aufsätze zur Wissenschaftslehre (*Collected Economic Essays*). By MAX WEBER. (Tübingen: Mohr-Siebeck publ. 1922. Pp. 579, 8vo.)

MAX WEBER, who died some years ago after succeeding Lujo Brentano in Munich, was undoubtedly considered in Germany as the greatest contemporary sociologist and economist. The scope of his erudition was unquestionably immense; but to read his works requires no common knowledge on the part of the reader. His collected essays treat of abstract problems, and are mainly critical and controversial. He has also the tendency to enter minutely into questions of detail. His style and manner of expression aim primarily at the achievement of surpassing precision and accordingly often lacks plasticity. There can be no doubt that Professor Max Weber possessed a great reconstructive imagination for social and historical events, but his presentation is rather laboured.

EUGÈNE SCHWIEDLAND

Die Arbeiterfrage (*The Social Question*). By HEINRICH HERKNER. Two volumes. (Berlin: De Gruyter & Co. 1923. Eighth edition. Pp. 600 and 630, 8vo.)

THESE two large volumes by Professor Herkner of the University at Berlin are generally considered as the standard German work on "Sozialpolitik," the name given in German science to the theory of industrial social reform. Volume I deals with general principles of this practical science, Volume II with its special theories and with the points of view taken up by various political parties. The author's style and his manner of exposition are always lucid and pleasant, and the numerous references to other works are useful. It is, however, a pity that Professor Herkner did not decide to rewrite certain portions of this work for its newest edition. Owing to this, the work appears in some respects slightly antiquated. For instance, it treats mainly of social policy carried out in Germany, and even there only of the questions of factory legislation. Neither the problems of sweated industries nor of farm workers are treated here. Certain other aspects of social development, such as the question of "closed shops," are also not adequately presented. Perhaps in a future edition the author will shorten those chapters, where the material is already old-fashioned, and lengthen others, where newer problems are treated. This would greatly add to the value of this justly renowned work.

EUGÈNE SCHWIEDLAND

L'Impérialisme économique et les relations internationales pendant le dernier demi-siècle (1870–1920). Par A. VIALLATÉ, professeur à l'École des Sciences politiqués. Un vol. in. 181. (Librairie Arnaud Colin, 103, Boulevard St. Michel, Paris), broché. 8 fr. English translation : *Economic Imperialism and International Relations during the last Fifty Years.* The Institute of Politics Publications, Williams College, Williamstown, Mass. (New York : The Macmillan Co. 1923. Pp. 180.)

THERE is not much literature on this subject, and students of international politics are therefore grateful to the author for this penetrating analysis of international relationships during the last fifty years. Only a bare outline, of course, is attempted in this volume, and there is room for further research into the problem of the contribution of economic Imperialism to war. Mr. L. S. Woolf has gone into the history of Africa, one or two minor writers have sketched briefly the influence of Oil on international politics, and Mr. E. D. Morel and Mr. H. N. Brailsford have also produced some valuable material, but they have covered only a small part of the whole field. The great need is for further constructive suggestions that will enable statesmen to control the competing interests and clashing ambitions of the Great Powers and the rival groups within them. All these writers agree that there lies ahead nothing but chaos, unless some form of economic internationalism supplants very soon the strife and jealousy that exist at present. Prof. Viallaté stresses this particularly in his survey of the post-war developments in European affairs. The League of Nations appears on the surface to have made provision for this need, but it is much too curtailed by the fears and greed of the victorious Powers—if, indeed, any can be said to be such—who framed its constitution, to be of much effective assistance. Its mandatory clauses are especially weak and allow of much exploitation of backward peoples.

There is an excellent introduction to this volume, showing how the Industrial Revolution and progress in the means of transportation altered the character of international relationships, and how, during the last quarter of the nineteenth century, the industrialisation of Western and Central Europe proceeded. The need for securing raw materials from abroad, and of finding outlets for surplus population and wealth is seen to have been a pressing one for all the large countries. Like Mr. Keynes, the author seems to have grasped the importance of the population question.

The colonial policies and expansions of the Great Powers are

briefly indicated, and the evolution of the conscious Imperialisms of England and Germany is clearly and well traced. America's share in the struggle for spoils is not overlooked, and a considerable part of this work is devoted to an analysis of American activities in the Caribbean Sea and in the Far East.

The author tries to be impartial, and one must forgive him if his natural political sympathies get the better of his judgment now and again in his reading of the pre-war antagonisms of France and Germany. On the whole he states his case with great fairness. He criticises strongly many of the actions of all the Great Powers, and shows how their common failure to learn what is meant by a true community of interests was in no small measure responsible for the late war. He traces, on the other hand, the growth of international agreements and conventions prior to 1914 in order to prove how weak they were, and how strong a factor nationalist sentiment still is. This is what Mr. Angell forgot.

It is in his handling of the post-war situation that his insight appears to be particularly sound. He sees the essential weakness of the League of Nations to be, that it is hampered in its real work of achieving economic internationalism, by political nationalisms and jealousies.

Rightly, however, he sees cause for hope in the fact that, even if only in order the more effectively to prosecute the war, the Allies were compelled by the inexorable logic of circumstances and events to adopt measures of co-operation hitherto undreamed of in connection with men, credit, supplies and transport, thus teaching the necessity of economic solidarity. Modern life is being seen to be too complex to permit of a return to the old isolation and individualism. Old economic units have ceased to exist, and new ones have come into being, but the economic clauses of the Peace Treaties have failed to allow for the fact that to-day international economic intercourse overflows political boundaries. The author errs in saying that Russia has "ceased to count in the world" on account of her revolution, but he sees clearly the great advantage gained by Japan and the United States as a result of the War. In his opinion New York is destined to remain the financial centre of the world.

In concluding, he states that "independent life is impossible in a world such as has been moulded by the inventions of the last century," that "America should not persist in her present attitude, or she will find herself in danger—Europe is her greatest customer" —and that "only an intelligent and persevering co-operation by all the peoples of the world will conjure away the peril that

threatens our civilisation." He thinks that world-wide Free Trade may be too ideal an aim, but advocates the adoption of a general policy of "moderate protection," if not of the principle of commercial equality for all, already tried on a small scale in China and the Congo basin. But he is not an optimist, because "not reason but passions govern the peoples." Whatever our own point of view, we shall have to admit that the writer of this book is a realist, who is also a master of his subject. Even Mr. Lowes Dickinson could make no more trenchant remarks than some of those contained herein.

FRANCIS E. LAWLEY

The Development of International Law after the World War. By OTFRIED NIPPOLD. Translated from the German by AMOS S. HERSHEY. (Oxford: The Clarendon Press. 1923. Pp. xv + 241. Price 7*s.* 6*d.* net.)

IT is probably rare that an attempted reading of the lessons of the War written in 1917 should be worthy of republication in 1923, but the Carnegie Endowment for International Peace of Washington, for whom this book is published, are well justified in their confidence. Professor Nippold's book is of deep and permanent interest, and it has been admirably translated by Professor Hershey of Indiana University, himself a well-known international jurist.

Two schools of juristic thought on the future of International Law are discernible to-day. There are those (of whom Dr. J. B. Scott, who contributes the introductory note to this volume, is one) who believe that it will and ought to return to the methods of slow but orderly development by which it seemed to be advancing before the War; and there are others who welcome the new attempt to give an organic character to the society of states, and believe that we can no longer rely on moral influences to secure the observance of law, which must henceforth be *enforced.* The one is the school of The Hague; the other that of the League of Nations. Professor Nippold is a reluctant but a very earnest convert to the latter, and Part I of this book is, as Dr. Scott says, "to all practical intents and purposes a commentary on the League of Nations before its birth."

Possibly Part II, which deals with the future of the Law of War, is of greater interest to-day when, for weal or for woe, the world is committed to the experiment advocated by Part I. The author believes that in the past International Law has gone too

far in attempting to treat war as a legal institution; a true international legal order can only be a regulation of the relations between States at peace, and the outbreaking of war marks its failure. The so-called Law of War, therefore, must be sharply distinguished from International Law; it is a survival from an earlier stage of legal development, and is destined, one must hope, to be gradually encroached upon, and in the far distant future to be altogether superseded, by International Law. This process of encroachment will proceed partly by a change in the character of International Law, partly by a change in the character of war itself. The former will be marked by the *enforcing* of law on a recalcitrant State by a League of the more progressive States, using primarily economic, but in the last resort military, measures of coercion.

The future change in the character of war is foreshadowed by the course of the World War, which has made it perfectly obvious that war is at least no longer a *purely* military struggle. Modern commerce and modern science together have made that idea an absurdity, the former by immeasurably increasing the effectiveness in war of economic strength, the latter by strengthening the power of the military defensive, and so making even a supposedly military decision depend on the greater or less degree of the economic exhaustion of the belligerents. "The modern form of war is the economic war"; it will be increasingly more effective than military war, and happily it is also far more humane. So that just as International Law itself is to develop by the creation of a system of guarantees primarily economic, and only secondarily military, so we may hope that war will develop by an increasing resort to economic measures of pressure, and military measures will fall into the background. Eventually it may be possible to establish a law of war forbidding resort to military war until economic war has been tried and failed. The vista of progress is, therefore, first a stage of wars without weapons, leading in the distant future to a warless era in which the coercive sanctions of International Law will wholly take the place of war.

This bald summary of Professor Nippold's thesis does scanty justice to the author's sober enthusiam in the quest of truth, his patient facing of difficulties, his impartial judgments on controverted points. It must suffice here to offer one general criticism. It may be doubted whether the change in the character of war is quite so revolutionary as this book would suggest. "In recent years," says Professor Nippold (p. 114), "people on the continent of Europe had more and more accustomed themselves to look

upon war as a *military war* in the narrower sense of the word." But Englishmen, perhaps because we tend to think of war more in terms of fleets than of armies, have always more or less instinctively recognised the influence of economic pressure in war; for a fleet wages "economic war" far more obviously and directly than does an army. Rousseau's shallow view that war is only a relation between States by which individuals ought not to be affected has never had many converts in England; whereas on the Continent it is, or at any rate before 1914 it was, the prevailing view. And no doubt to any mind that has accepted this theory, the late War must indeed appear to have wrought a veritable revolution. Perhaps the truth is, not that war has changed its character, but that it is better understood; for no purely "military war" ever has been fought.

J. L. Brierly

NOTES AND MEMORANDA

THE EFFECTS OF THE TRADE CYCLE IN NEW ZEALAND

ANALYSIS of the War and post-war cycle in New Zealand shows the Dominion to be dependent to a remarkable extent upon conditions obtaining in Great Britain, and discloses the two main aspects of this dependence in the closeness of the Dominion's trade and monetary relationships with London.

In the main New Zealand is an outlying farm, exporting pastoral produce which in 1921 constituted 93 per cent. of her total exports,[1] supplying her own wheat and animal food-stuffs, but importing most of her manufactured goods. Ranking before the War second only to Belgium in the value of her external trade per head of the population, she is dependent in an unusual degree on the sale of her exports. Of these, in 1919–1922 more than 80 per cent. went to the United Kingdom.[2] It follows that prices ruling in Great Britain for her produces are the dominant factor in determining the purchasing power of her farmers, and this in turn governs the general prosperity of the whole community.

The momentary dependence is even more complete. Before the War the Dominion had free circulation, import and export of gold, but no Mint. Gold flowed in and out of this country, in small amounts, not on account of exchange movements, but rather to meet the varying needs of the banks for coin. The rate of exchange on London, through which centre probably 95 per cent. of the trade was financed, together with the discount rate in New Zealand, remained fixed, in accordance with the policy of the Associated Banks, for a decade before the War. Fluctuations in the balance of indebtedness were partly compensated by the rise and fall of the banks' London balances, partly corrected by the effects of expansion and contraction of credit in London in accordance with the movement of London balances. Thus a

[1] *N.Z. Year Book*, 1923, p. 230. [2] *Ibid.*, p. 236.

remarkable degree of monetary stability was achieved. A fixed exchange became customary at the expense of a price-level tagged to that of Great Britain, but fluctuations of prices in New Zealand tended to be smoothed out by the compensatory effects of changes in the London balances.

On the outbreak of war gold payment was suspended,[1] and the note issue increased immediately to replace the gold abstracted from circulation. Rising prices for exported produce increased the returns to farmers and others, so that by June 1916 bank deposits had increased by nearly eight million pounds (32 per cent.), which advances had increased by less than one million (5 per cent.). So far, six-sevenths of the increase in purchasing power, reflected in rising prices, was due to the rise of prices in Britain, and only one-seventh to internal inflation of credit. This dependence upon British prices continues. It was a chief factor in the development of the boom that followed the War, and was the direct occasion for the subsequent crisis and depression.

But internal inflation of notes and credit followed, the note issues at first limiting, and later following, the credit expansion. A regulation gazetted in August 1916[2] empowered the banks to issue notes against the total amount of "coin, bullion, and public securities held." A further provision—that the amount of *coin* held should never be less than one-third of the note issue, which until then had effectively restricted note expansion, and, hence, credit expansion also—was at the same time suspended. Banks then were enabled to issue notes against public securities, to make advances to customers for investment in War Loan stock, which was public security against which further notes might be issued, and so on *ad lib.* The possibilities of such a system were infinite, but the banks proved fairly conservative and discreet, and though between 1914 and 1920 the Government raised internal loans totalling £85,000,000, bank advances during the same period increased only from £22,000,000 to £33,000,000, whilst deposits increased from £25,000,000 to £54,000,000, the growth of deposits being partly accounted for by increased domestic advances, partly by increased London balances. Hence it seems fair to conclude that over the whole period less than half the price rise in New Zealand was due to inflation locally induced, and more than half to the influence of British conditions operating through a fixed exchange. The following table shows the movement of export prices :—

[1] *N.Z. Year Book*, 1923, p. 529. Notes are legal tender till the end of 1924.
[2] *N.Z. Gazette*, 1916.

Year.	Recorded Value.[1] £100,000	Value at Prices of 1900.[1] £100,000	Deduced Index of Volume of Exports.	Deduced Index of Export Prices, 1913—100.
1913	226	175	100	100
1914	260	199	114	101
1915	310	200	114	120
1916	330	187	107	133
1917	310	156	89	154
1918	279	124	71	174
1919	533	248	142	166
1920	456	200	114	176
1921	436	212	121	160

With the return of free marketing after the cessation of hostilities, the price rise in Britain was accelerated, and the effects were, as usual, passed on to New Zealand. Then followed the boom, marked by almost universal expansion and speculation. The scarcity of imports owing to shipping and other immediate post-war difficulties encouraged a short-sighted expansion of local secondary industries, and high trading profits led to a similar unwise expansion among merchants and retailers. But the effects were greatest in land speculation. Land transfer is greatly facilitated by the simple system of land registration in force in the Dominion, and every farmer, it seemed, desired larger and yet larger holdings. For in a country where agricultural rents are but little known and mortgages are almost universal, farmers have a large proportion of their costs fixed in interest on mortgages. Changing produce prices, therefore, react immediately and more than proportionately on the value of the owner's equity. The effect of the almost universal loading of land with transferable mortgages is to make dealing in land largely a matter of speculation on the margin of the owner's equity. In addition to other inducements to speculation, the Government entered the market as a competitor and spent approximately £20,000,000 on soldier settlements. Hence the price of land soared. Good dairying land, worth £40 to £60 per acre before the War, changed hands at £150 to £200 per acre. Farms were known upon occasion to be sold two or three times in one day, and the orgy was aided by the general readiness of sellers to accept mortgages in part payment. To-day mortgages ranking fourth and fifth in order of priority are common, and tenth and twelfth mortgages are not unknown. Between 1918 and 1922 the aggregate of mortgages outstanding increased from £138,000 to £231,000,[2] and much of the increase represents nothing more substantial than the sellers' expected profits recorded as debts due from the buyers.

[1] *N.Z. Year Book*, 1923, p. 252. [2] *Ibid.*, p. 566.

For this period of speculation the banks were in no way responsible. Their credit policy was commendably conservative. Drastic changes in the exchange rate might have checked the boom by reducing the amount received in New Zealand for a given credit in London, but an approximately fixed exchange had become a tradition hard to uproot, and in any case the bankers were somewhat bewildered and preferred to play safe. There were other firms, however, mostly stock and station agents, and some farmers' co-operative concerns, taking money on deposit, lending on credit, buying and selling farms, live-stock, and farmers' produce and requisites, that acted much less discreetly. After the slump began one of these firms published a balance-sheet showing for their banking department—Fixed Deposits, £300,000; Current Deposits, £500,000, and cash in hand and bank over-draft, £12,000 ! ! The remaining assets, as time has shown, were far from liquid.

The fall in British prices began about March 1920, and was particularly heavy in the case of crossbred wools, which are of great importance to New Zealand. But the reaction in the Dominion did not set in till some months later. Mortgages registered, perhaps the best indication of land speculation that is available, reached their peak in August, wholesale prices turned downward from October, and retail prices from December, 1920. Meanwhile importers, unable to get orders filled abroad, had duplicated and re-duplicated their demands, and during 1920 overseas merchants, filling these orders, were enabled to sell from a falling market to one still rising.

It is at this stage that the banks were called upon. Many of the importers traded under arrangement with the banks to meet their bills at sight of London, the disbursements being charged to the importers' account in New Zealand. From March 1920 to March 1921 imports exceeded exports by £19,000,000; the adverse balance of indebtedness was probably over £25,000,000. Called upon to meet these payments, the banks depleted their London balances, and as the fall in export prices had greatly reduced the purchasing power of the farmers and had been immediately passed on to other sections of the community, goods became difficult to sell, so that banking deposits were reduced and advances greatly increased. The £20,000,000 increase in the debts due to banks between March 1920 and June 1921 represents not so much the considered policy of the banks to aid traders by extending credit, as the demands for credit that were latent in obligations to customers the banks had already undertaken. With the scarcity of funds in London the exchange rates had to

be adjusted, and for a while the selling rate on London stood at 3 per cent. premium, while the overdraft rate here moved to 7 per cent.

At this stage the Government interfered to protect certain classes of debtors. A Moratorium Act dating from 1919 was amended and gave time to firms taking deposits in which they might meet their depositors' claims. By the same means mortgages entered into before 1919 were protected until the end of 1924.[1] Certain firms issued debentures to meet the claims made upon them, and ample time was given to landholders to make arrangements for meeting their obligations. There is little doubt that the extension of the moratorium mitigated what might otherwise have proved a very severe crisis; but, on the other hand, recovery has been delayed owing to the general weakening of security that follows from inability to estimate the true position.

From mid-1921 to mid-1922 depression was widespread. Prices fell steadily; business was contracted; bankruptcies, particularly among farmers and newly established businesses, were common; unemployment increased, but was mitigated by the remarkable mobility of labour in New Zealand; and a vigorous campaign by the secondary manufacturers for increased tariff protection brought them little real gain. Reconstruction, re-adjustment and retrenchment were the general rule. The main difficulty has been the reduction of costs, especially labour costs, for most industries are governed by the award rates of the Arbitration Court, which has for the past few years fixed half-yearly a legal minimum wage on a six-monthly moving average of retail prices.[2] Under these conditions wages lag from three to nine months behind prices, whether the movement be upward or downward. Retail prices too have fallen but slowly, for shipping costs and distribution charges remain high. In addition there has been a great reluctance among business men, politicians and Government officials to face the great need for economy after the extravagance of the War and boom periods.

But the farmers and land speculators who reaped the first fruits of the boom have also suffered most from the slump. Many who had speculated or bought larger holdings found themselves with fixed obligations that could be met only on condition that prices continued to rise, while as a matter of fact working expenses remained high, but the bottom seemed to have dropped out of the market for their produce. No record of readjustments so far made is likely to be available; but cases are known where

[1] *N.Z. Year Book*, 1923, pp. 567–8.

[2] Cf. ECONOMIC JOURNAL, Dec. 1921, pp. 547–54.

men simply walked off their holdings, thinking it best to write off their own equities and leave the farms to the mortgagees; in other cases mortgagors and mortgagees have compromised, and accumulated interest, sometimes with large proportions of the principal, has been written off, so that the farmers have been able to reconstitute their affairs on a workable basis.[1] Foreclosures, too, and forced sales by mortgagees, have been common. Even the Government has had to admit loss. After much agitation an inquiry has recently been conducted into the affairs of soldier settlers. It is decided that in a large number of cases interest on the soldier's mortgage must be remitted and the principal written down, so that men may be put on a sound footing. The official estimate of loss on this account is 10 per cent.,[2] and that figure is almost certainly too low.

The movements of the most significant figures for the course of the cycle are as follows:

BANKING AND LAND SPECULATION

Year June.	Bank Deposits (Govt. excluded).[3] £100,000	Debts due to Banks.[3] £100,000	Velocity Index.[4]	Mortgages Registered (Cumulative).[5] £1,000,000
1914	25·4	22·1	129	106
1918	36·0	31·5	151	138
1920	54·5	33·4	224	172
1921	45·4	51·4	171	209
1922	41·3	44·4	145	231
1923	45·6	40·2	157	242

PRICES AND EXTERNAL TRADE

Year.	British Prices (*Economist*).	N.Z. Wholesale Prices.[6]	External Trade Balance, Year ending March 31st. £100,000
1914	(July) 100	(July) 100	plus 11·2
1918	(Dec.) 237	(Dec.) 185	" 5·9
1920	(Mar.) 325	(Mar.) 200	" 18·6
1921	(Dec.) 166	(Dec.) 183	minus 19·3
1922	(June) 171	(June) 170	plus 7·8
1923	(June) 167	(June) 173	" 8·4

(N.Z. wholesale prices reached their peak in October 1920, when the index stood at 216.)

[1] *N.Z. Budget*, 1922, p. xxxvii.
[2] Report on Soldier Settlement, N.Z., 1923.
[3] *N.Z. Gazette.*
[4] Percentage of current to fixed deposits, corrected for seasonal variation.
[5] *N.Z. Year Book*, p. 566.
[6] *N.Z. Abstract of Statistics.*

During 1922 stagnation gradually gave place to recovery. Improved prices for pastoral produce, especially wool, brightened the outlook for the farmer and revived the flagging faith of the rest of the community. Business improved considerably and internal prices began to rise. The set-back to recovery that followed the raising of the bank rate in Britain early in 1923 seems likely to be absorbed in the exchange mechanism and not to reach New Zealand. The increased prosperity during the last year has brought increased imports to the Dominion, and warnings have been sounded lest another boom should develop.

Taking the period as a whole, it is probable that New Zealand is richer rather than poorer than in 1914. Of the soundness of the country in general there can be little doubt. But the cycle has occasioned a considerable transfer of real wealth between different sections of the community. Bank profits have been high, and continue high; many merchants and traders have gained considerably; and there are many farmers who sold out and retired before the boom burst. Much of the War profits, however, was expended during the boom in wasteful and extravagant enterprises as well as in extravagant living. Perhaps the clearest example of wasteful expenditure encouraged by the boom is the Government policy of building great public works, such as hydro-electric plants, at high prices; in the same way many farmers extended their holdings; the secondary industries expanded their works; and the meat-freezing industry particularly has been seriously handicapped in its competition with the Argentine by the undue multiplication of comparatively small works all over the Dominion. Many of these, as well as other forms of farmers' co-operative businesses, have suffered severely from the slump, and, in common with many firms engaged in the secondary industries, they have yet to emerge from the critical stage.

Of the farmers themselves, on whom the prosperity of the community must long continue to depend, the majority who avoided rash speculation are again in a sound position, but there is an uncertain minority who maintain their positions with very great difficulty. How many of these are really insolvent, and how far their insolvency will affect the rest of the community, can only be told when the moratorium expires at the end of 1924.

A. H. TOCKER

Canterbury College,
Christchurch, New Zealand.

The Irish Fiscal Inquiry

Reports of the Fiscal Inquiry Committee: Saorstát Eireann. (Dublin: Messrs. Eason & Son, Ltd.)

Alone perhaps among the nations of Europe, Ireland has not had within living memory a fiscal controversy. To many it seemed, when the new State was established, that not even so would this defect be made good. Nationalist sentiment was heavily committed to protection, and it was doubtful whether the relatively scattered interests and opinions which might lean against it would seriously challenge its triumph. Add the possibility of deriving from taxes on manufactured imports a considerable incidental revenue, and a non-controversial transition to protection might well seem assured.

The Report of the Fiscal Committee has destroyed this prospect. Indeed the controversy may be said to have started from the date when the personnel of the Committee was announced. Many a protectionist who heard the names of its members thought meanly of them and wrote or spoke even more meanly. As we write, a debate is in progress in the Dáil, which seems to promise a renewal of youth in Ireland for arguments and rejoinders that have grown grey elsewhere.

Why did President Cosgrave appoint this Committee? We see no reason to doubt the answer implied in his statement to the Dáil last June. The country needed on this question a basis of information which it might use whilst making up its mind on policy. The Committee states that in analysing the evidence and proposals brought before it, it has confined itself to the task of reviewing them in the light of ascertained facts and common experience. It is just this that was required as a starting-point for the formulation of a genuine Irish policy. The "ascertained facts and common experience" existed, but they were set out for the most part in the writings of foreigners: they needed unequivocal pronouncement by Irishmen for Irishmen.

More than a starting-point for discussion the Report can hardly be. It consists of sixty-two octavo pages with one statistical appendix, and half the space is given to a précis of the evidence. The case for protection was ill presented: it will be easy for protectionists to discard much and so to remodel the remainder as to present a substantially different case. If they do so they will have to be answered, for the Committee has not sought to make the protectionists' case for them: it contents itself with discussing the arguments brought before it, and it does not spare

the whip. The most obvious defect in the case presented was the evident failure of Irish protectionists to inquire into and sift out their own discrepancies of interest and frame a conciliated national scheme. It is probable that many protectionists feel that it was the duty of the Committee to do precisely this, and are proportionately sore when they find it poking fun at good men in a muddle instead of steering them out of their difficulties. Their naïve allegations that the Committee has shown "Cobdenite" bias probably rests on some such feeling.

Verbatim reports of the evidence have not been published, but it seems clear from speeches in the Dáil that more than one witness felt himself in an alien atmosphere, and there are one or two sentences in the Report—a shade too bright—which suggest that the Irishman's traditional impatience of folly may have swayed judgment. We have, on the other hand, heard that witnesses received much help from the Committee in explaining their views, and that without this assistance their plight would have been far worse. We pass now to the central issue. The more serious critics of the Report complain that too much reliance is placed on "analysis of proposals in the light of established fact and common experience," and that too little bonâ fide investigation was done with the object of adding to the stock of fact and experience. This criticism seems in part at least deserved. Certain questions of fact which figure in the discussion are in the end left undecided: we would instance in particular the discussions of the Ford works in the South, and of the relation of Irish to British and North of Ireland Labour Costs. We believe that in most cases where this has happened the explanation is that a conclusive investigation was not possible with the time and means at the disposal of the Committee, and that the value of their work is not seriously lessened by these deficiencies. At the same time from a formal point of view the Committee has not always been too happy in dealing with such points. To take the two instanced. The one definitely protectionist recommendation of the Committee is that in favour of motor-body building: now this recommendation cuts across proposals for Anglo-Irish free trade in motor-cars based on certain statements regarding the Ford works which are neither accepted nor rejected by the Committee. Again, the Committee criticises rather severely the contention of many manufacturers that Irish labour is expensive, on the ground that the witnesses were usually unaware of the distinction between high wages and high labour costs. Yet we have difficulty in believing that the Committee really thinks the workers of the South so superior in efficiency to British workers

as would outweigh the differences of wages shown in the comparative table prepared by their own investigator. We feel that lenience should have been shown to the confusion between wages and labour costs, unless the Committee had *strong reason* to surmise that labour costs really are as low in Southern Ireland as in Britain.

The critical part of the Report is full of pithy re-statement of old truths refreshed by apt illustration from the actual conditions of Irish industry. Of special interest are the remarks on the problem of increasing returns, and on the probable tendency of protection to induce manufacture on an uneconomically small scale of production. On the whole the Committee sums up strongly in favour of maintaining the free trade system in Ireland and against adventures in protection. Yet to this general statement certain qualifications should be added.

In the first place, as already stated, the Committee had before it the merest travesty of a case for protection. It is possible that this was one reason for their unanimity, that an abler presentation would have inspired them with more respect for the subject and either captured or at least divided them. Secondly, all the members of the Committee probably possess the characteristically Irish faith that there is a place for reasoning and for reason in public matters if only one can devise institutions which will give them a chance. If this be so they would all feel in their bones that this was *par excellence* a subject on which Irishmen had not yet reasoned sufficiently, and would therefore tend to a report which would stimulate thought. Consequently the English reader would do well to take seriously the paragraph in which the Committee explains that while condemning certain proposals on *economic* grounds, it fully realises that protection may be desirable on social, political, or æsthetic grounds. Such concessions in the mouth of an English Committee would mean little. When I read in the books of English Free Traders elaborate arguments in favour of protection, I know that it is "all right": they are sound at heart: they may burn this incense on the shrine of truth, but they will see to it that in the end the Whig dog gets the worst of the argument. The case is different in Ireland. Here men actually believe in reason—are ready to kill and be killed for it. Accordingly, I should not be surprised to find any or all of the men who signed this Report (with the possible exception of Professor Bastable) welcoming or at least accepting protection—if only the protectionists will drop the bogus case for protection and stress the arguments that really have weight.

H. O. MEREDITH

RECENT OFFICIAL PUBLICATIONS

THE indication of Governmental publications that are of special interest for the economist has become less necessary now that under the auspices of the Permanent Consultative Committee on Official Statistics there is issued a Guide to current official statistics. The topics are arranged under some twenty-five main headings ranging alphabetically from Agriculture to War; by means of which and the subordinate classifications the inquirer readily finds his way to any particular report. There is appended to each publication the price at which it may be obtained from His Majesty's Stationery Office, Kingsway. The nominal prices or free gifts by which in the spacious pre-war times Governmental publications were made available for general use are no longer granted. Rather, the authorities seem to aim at what Dr. Marshall has called "compromise benefit"; that which results when a Government acting as a monopolist fixes price on the basis that £1 of benefit to the consumer is equally desirable with £n of monopoly revenue; and it may be feared that n is not, as in the case supposed by Dr. Marshall, a proper fraction.

The Official Guide having not yet been brought up to date, some important recent reports are mentioned below.

Sixty-fifth Report of the Commissioners of His Majesty's Inland Revenue. [Cmd. 1780.]

THE Report, like some of its predecessors, includes lucid descriptions of the principal duties. A new feature in the account of estate duty is the classification of capital values and numbers of estates according to the sex of the deceased. Roughly, in England, the net capital value left by males was two and a half times greater than that of females. The ratio of total net value of personalty to that of realty happens to be much the same. The net receipt of income-tax for 1921–22 from the United Kingdom was very nearly 335 millions; that of the preceding year over 340 millions.

Imperial Economic Conference. [Cmd. 2009.]

THIS record of proceedings and documents begins with the resolutions agreed to by the Conference. Then follow the opening speeches of Ministers representing the Dominions and Dependencies, mostly adverting to matters which become the subject

of subsequent discussions. For example, the third resolution reaffirms the resolution of 1917 in favour of Imperial Preference, and affirms the principle of Imperial Preference in public contracts. Mr. Bruce strongly advocated these measures. He argued that the Preference given by the Dominions was substantially somewhere between 10 and 11 million pounds. Trade with the Dominions was more valuable to Britain than foreign trade; for the five large Dominions took in exchange from her nearly as much as they exported to her: viz. 229 against 232 millions; whereas other countries took from Britain only 113 millions, while they exported to her 318 millions. The Dominions per head imported much more than foreigners: New Zealand nearly £14, Australia nearly £12 per head, against 14*s*. 7*d*. taken by the United States. He therefore advocated a Protective tariff on foodstuffs and raw materials, with preference to the Dominions. Alternatives to this his counsel of perfection were proposed by him and other speakers; and were the subject of discussions reported in the latter part of the volume.

Report of the Committee on the Co-ordination of Administrative and Executive Arrangements for the Grant of Assistance from Public Funds on account of Sickness, Destitution and Unemployment. [Cmd. 2011.] Price 4*s*.

REVIEWING several public services, the Committee find some not very serious "gaps" and overlapping; and recommend remedies for failure of co-ordination.

Report on the Administration of the Trade Board Acts from 1st January, 1922, *to* 31*st March*, 1923 (Ministry of Labour). Price 6*d*.

DURING the period under review no fresh Trade Board was formed; 86 rates were fixed, mostly reductions of existing rates (exhibited in appended Tables). Eight Trade Boards adopted "sliding scales" dependent upon the Cost of Living figure published monthly in the *Labour Gazette*.

Reports of the Departmental Committee on Distribution and Prices of Agricultural Produce. (*Milk and Milk Products*, Cmd. 1854. *Fruit and Vegetables*, Cmd. 1892. *Meat, Poultry and Eggs*, Cmd. 1927. *Cereals, Flour and Bread*, Cmd. 1971. *Final Report*, Cmd. 2008.)

This Committee, appointed by the Minister of Agriculture and Fisheries under the Baldwin Administration in the last days of 1922, completed its inquiry within a year of its constitution, having presented four Interim Reports, each one dealing with a particular product, or group of products, and a Final Report. Taken together these Reports form a guide to the marketing methods adopted in this country in connection with the more important home-grown foods, the authority and usefulness of which is beyond question. A study of agricultural marketing in this country has long been needed, and the Linlithgow Committee has made an important contribution to the subject. Possibly the greatest value of the Reports lies in their descriptive aspects. The reader gets the impression that when the Committee reached the stage of making definite criticisms of existing practices and conditions, and of framing recommendations for their amelioration, the necessity for compromise, if unanimity were to be secured, led to a good deal of watering-down of conclusions seemingly justified by the evidence. In no place is this more apparent than in the sections of the Final Report dealing with the question of agricultural co-operation. After discussing, at considerable length the advantages which should accrue to the producer from co-operative organisations of various kinds, the Committee is unable to make any recommendation to the Government.

Current Topics

The following have been elected to membership of the Royal Economic Society :—

Abernethy, A. H. (life).
Acworth, A. W. (life).
Aitken, A. J. C.
Aiyer, R. Rama.
Alder, M. C.
Atal, P. B. M. Lal.
Bakre, A. S.
Banerjee, Prof. W. C.
Baring, Cecil.
Barnes, Prof. H. E.
Beaver, H. E. C.
Bennett, S.
Berger, J. A.
Berry, H. V. (life).
Bhagwati-Sahai.
Bibby, E.
Blakemore, F. W.
Blower, A. L.
Breckin, J. A.
Breed, Miss W. M.
Brunner, Felix (life).
Butterworth, J. B.
Clipstone, H. I.
Cockerill, Brig.-Gen. G. K., C.B., M.P.

Cook, A. R.
Cooke, J. S.
Crossman, Prof. L. E.
Dobb, M. H.
Dowell, T. J.
Duckworth, H. V.
Dudley-Kindon, K.
Earle, P. A.
Edwards, Lewis (life).
Elder, K. W.
Elkon, H.
Farndon, E. A.
Forrest, A. E.
Fuller, H. A.
Goldberg, F.
Goldsmith, Miss M. L.
Gooding, W. P.
Groom, H.
Hall, J.
Haas, Rev. Dr. F. J.
Hare, E.
Harris, W. H.
High, D. F.
Hill, J. R.
Howard, C. H.
Howard, S. W., M.C.
Howd, Prof. C. R.
Hulatt, H.
Hunter, C. W. L.
Ivanov, Prof. Serge F.
Jack, D. T.
Jenkinson, A. J.
Jones, E. J.
Kaplan, Prof. A. D.
Khanna, H. Lal (life).
Kinlock, Rev. T. F.
Knowles, Lawrence.
Kulkarni, B. R.
Lamb, J.
Langfield, F. C.
Lawley, Miss E. F. G. (life).
Leicester, E. F.
Lewis, P. H.
Liddell, A. R.
Lloyd, G. W.
Loman, Rev. E. L.
Loomba, Prof. D.
Longbottom, J. L.
Lyon, W. H.
Macdiarmid, Allan C.
McDonald, H. B.
McPhail, F. C.
Majumdar, H. C.
Mann, Miss J. de Lacy.
Marshall, A. P.
Matthews, J. H.
Middleton, K. J.
Middleton, W. Aberdein, O.B.E. (life).
Mills, A. S.
Morley, Felix (life).
Morton, J. H.
Moulton, Dr. H. G.
Naess, Erling D.
Naish, Miss M. L.
Nehalchand, B.
Neill, J. F. B.
Odate, Dr. G.
Organ, W. W.
Pearson, C. R.
Pemberton, T. N. (life).
Phillips, R. J. M.
Prasada, Kanti (life).
Rallan, S. R.
Ramaiya, A.
Rees, R.
Rice, J. P.
Roberts, F., M.C.
Rosher, J. B., D.S.O., M.C.
Rowe, J. W. F.
Ryan, P. J.
Saxena, S. Shankar.
Selby, Major H. J., M.C.
Sellar, A. S.
Sheppard, C. Y.
Side, A. D. B.
Sladen, N. St. B.
Smith, W. E.
Spelman, S. G. H.
Stubbs, F.
Sydow, A. H.
Tanner, E. L.
Thomas, H. J.
Thompson, J. A.
Toyne, F. M.
Underwood, E. G.
Unwin, J.
Vaughan, H.
Vechalekar, P. B.
Wallace, W.
Walton, V.
Ward, E. A. L.
Waters, H. G.
Watt, J. (life).
Webster, J. E.
Wedgwood, Rt. Hon. Josiah C., P.C., M.P.
Wilkinson, E. P.
Williams, F. A.
Williams, J. H.
Willington, D. E.
Wolfenden, E. S. (life).
Woodhouse, M. L.
Wyllie, R. L.

The following have been elected to library membership:—The Athenæum; Kenyon College, Ohio; Ruskin College, Oxford; State University of Iowa; University of Western Ontario; Regio Istituto Superiore di Studi Commerciali, Turin; Municipal School of Commerce, Birmingham; Glowny Urzad Statystyczny, Poland; Fuh Tan University, Shanghai; Queen's University Library, Kingston, Ontario; Grenoble University Library; Wheaton College, Norton, Massachusetts; Istituto Internazionale d'Agriculture, Rome; Universita Commerciàle Luigi Bocconi, Milan; Dirección General de Estadistica, Buenos Aires.

THE Annual Meeting of the Royal Economic Society will be held at the London School of Economics on the afternoon of Tuesday, April 15. It is hoped to arrange for a discussion on "Monetary Reform" which will be open to members and their friends. Full particulars will be circulated to members at a later date.

A CONFERENCE of Teachers of Economics and Kindred Subjects in British Universities assembled at Balliol College, Oxford, on Friday, January 11th, and continued its meetings over the week-end. Some fifty-five teachers took part in its deliberations. The Conference was the outcome of a circular signed by those responsible for the teaching of Economics in most of the British Universities, and addressed to their colleagues in all institutions of University rank. "The lack of facilities, available to those engaged in the teaching of Economics, for a free exchange of ideas appears," declared the circular, "to merit consideration." This "need for closer contact" was the underlying motive of the Conference, and the excellent response to the circular showed that the need indicated had been felt.

Sir William Beveridge presided at the opening meeting (January 11th), when Professor J. H. Jones introduced the subject of "The Content of an Economics Honours Course." Professor Jones argued that Universities should—as far as limitations of personnel permit—provide alternative courses, enabling Economics to be studied in close conjunction with another subject—Law, History, Philosophy or Mathematics. The discussion was continued on January 12th (Sir William Ashley in the chair), when first-hand accounts were presented of the position of Economic teaching in various other Universities. Notable contributions were made by Professor Clay, Professor Burbank

(Harvard), Mr. J. F. Rees and others. Professor Dewsnup introduced the subject of "The Degree in Commerce" in a paper which itself aptly illustrated his conception of Commerce as an instrument of general culture.

At the evening session, the Master of Balliol presiding, Sir William Beveridge opened a discussion on "Lectures, Classes and Seminars in their Relation to Economic Teaching," explaining the various experiments in educational technique in progress at the School of Economics. Sir William Ashley and Dr. Heaton (Adelaide) were among those who followed. There was much illuminating discussion of the respective merits—from both the students' point of view and the teachers'—of "tutorials" and "seminars."

At the final session (January 13th) Sir William Ashley again took the chair. Professor Cannan read a paper on "How and When the Teaching of Economics should begin"—a witty presentation of the historical evidence in favour of an early start, fortified by conclusions drawn from much practical observation. An excellent discussion followed, which showed that there is a sharp division of opinion among teachers as to the validity of Professor Cannan's thesis. This discussion was preceded by a short business meeting, when unanimous approval of the principle of teachers' conferences was expressed, and a committee was appointed to arrange for a further gathering in 1925 and to consider the scope and character of future meetings.

The Committee consists of Sir William Ashley, Sir William Beveridge, Professor E. R. Dewsnup, Professor D. H. Macgregor, Mr. H. Phillips, Mr. J. F. Rees and Mr. D. H. Robertson. Mr. Phillips (Bristol University) will again act as Secretary. It is hoped to hold next year's Conference in Cambridge, probably during the week-end January 2nd to 5th. This, it is thought, may meet the needs of Universities which, owing to their short Christmas vacation, were not able to be represented at the Conference this year.

PROFESSOR COPLAND sends the following figures for the Irving Fisher "Equation of Exchange" for Australia, in continuation of those previously published in the ECONOMIC JOURNAL for December 1920 (p. 501):—

"The equation obtained in the period under review gives a satisfactory approximation to the recorded index-number, the margin of error not being serious except for 1922. But the figures for 1922 are subject to correction, as the data are incom-

plete. It is probable that trade will be greater than the figure given, and therefore the price level lower. It is worthy of note that for the fifteen years for which the equation has been calculated, in only one was the error appreciably greater than 10 per cent. In four years it was about 10 per cent. and for the rest very much below 10 per cent. The average error was 5·8 per cent."

THE EQUATION OF EXCHANGE, 1918–22.

Year.	M.	V.	MV.	M'V'.	MV+M'V'.	T.	$P=\frac{MV+M'V'}{T}$
1913	11·6	5	58·0	646	704·0	117	6·02
1918	18·5	5	92·5	1046	1138·5	103	11·05
1919	20·3	5	101·5	1134	1235·5	106	11·66
1920	22·6	5	113·0	1489	1602·0	111	14·42
1921	24·2	5	121·0	1319	1440·0	125	11·52
1922	22·8	5	114·0	1348	1462·0	130	11·24

COMPARISON OF P OBTAINED BY EQUATION WITH INDEX-NUMBERS OF WHOLESALE PRICES.

Year.	P by Equation.	P on Basis of 1000 for 1911.	Wholesale Prices Index-numbers.	Percentage Difference of II on III.
1913	6·02	1033	1088	−5·1
1918	11·05	1895	1934	−2·2
1919	11·66	2000	2055	−2·6
1920	14·41	2473	2480	− ·3
1921	11·52	1976	1903	+3·8
1922	11·24	1928	1758	+9·6

The late Mrs. Medley's magnificent bequest of £20,000 to found "a scholarship" at Oxford for the study of Political Economy appearing to be hardly compatible with economy in the narrower sense of the term, power was obtained last year to vary the bequest so far as to carve more than one scholarship out of the fund. A certain Committee will in each year determine the number of the "George Webb Medley Scholarships" to be offered in that year, and the value, which is not to be less than £80 or more than £300 per annum. The first award of this valuable prize has now been made, the winner being Miss Evelyn Gilchrist Wilson, of Lady Margaret Hall. She is, we believe, the first lady who has obtained a University Scholarship at Oxford.

RECENT PERIODICALS AND NEW BOOKS

Economica.

NOVEMBER, 1923. *The Restoration of the Gold Standard.* PROF. GUSTAV CASSEL. "It is of the greatest importance for the development of British trade and for the maintenance of London's position as a monetary centre that the gold standard should be restored at the earliest possible date." It would much contribute to the stabilisation of the value of gold, with benefit to the world. *The Measurement of Progress in Public Health.* With special reference to William Farr. SIR ARTHUR NEWSHOLME. *A Word for the Devil.* D. H. ROBERTSON. The devil of Malthus is not so chained but that he puts difficulties in the way of plans like family endowment and disarmament. The writer does not retract his youthful utterance, that "there can be no permanent limitation of armaments till there is an international agreement for the limitation of birth-rate." But the *advocatus diaboli* is not one-sided; and he reduces some claims that are made on behalf of his client. *The Limits of Agricultural Expansion.* R. B. FORRESTER. The law of diminishing returns is not to be attributed *par excellence* to agriculture; considering the possibilities of improvement both in technique and organisation. *Over-population, Emigration, Empire Development.* DR. E. W. SHANAHAN. Schemes for relieving the over-population of Great Britain by emigration mostly fail to satisfy the three conditions, that the mother country, the adopting country and the emigrants themselves should all be benefited. More may be hoped from a well-organised emigration of children and juveniles. *Wages and Production in a Durham Colliery.* PROF. A. L. BOWLEY and MARGARET H. HOGG. Interesting statistics, showing great inequalities in the earnings per period and per shift.

Edinburgh Review.

JANUARY, 1924. *Protection in Australia.* F. A. W. GISBORNE. Absurd and evil as are the effects of the Tariff and the Navigation Act, the Federal Arbitration Court with its compulsory arbitration is even more fatal. *War Supplies and Imperial Preference.* C. ERNEST FAYLE. An examination of the facts and the experience of the late war (showing a shrinkage in the proportion of our imports from the Empire from 24·5 to 18 per cent.) suggests that our security against interruption of supplies is only obtainable by preserving the widest possible range of alternative sources. Differentiation against the outside world might well make war more probable. *Tariffs and Empire.* THE EDITOR. The recommendations of the Imperial Conference—what General Smuts described as "the preferences which we discussed and which we granted"—are not binding on the British people; whom the proposed new duties on dried fruits and the retention of the duty on sugar affect injuriously. There is no equivalence

between the preference asked and those given, between the loss to the British, who tax imports only for revenue and the case of the Dominions, who, "after having established what they consider to be a sufficiently high tariff against us, then decorate the stage with a still higher duty on foreign goods." If the British people were converted to Protection, they would treat imports from the Dominions as the Dominions now treat British goods.

Quarterly Review.

JANUARY, 1924. *Our English Villages.* LORD ERNLE. Reviewing the agricultural history of England with the aid of several recent monographs on particular villages, Lord Ernle advocates subsidiary employments such as were set up in the rural districts of Germany last century.

Contemporary Review.

JANUARY, 1924. *The Capital Levy.* SIR JOSIAH STAMP. From an examination of the various methods by which payment would be made, it appears that the deflation of credit due to the cancellation of securities capable of supporting Bank Loans would be serious; yet not coextensive with the levy, not necessarily more than a third (or half) thereof—apart from possible psychological effects of a shock to confidence.

FEBRUARY. *Agriculture, the Elections and After.* RIGHT HON. F. D. ACLAND.

Nineteenth Century.

FEBRUARY, 1924. *Imperial Preference.* RIGHT HON. STANLEY M. BRUCE. Cobden's and Bright's ideal of universal free trade and commercial millennium having failed, we can best realise their objectives, the promotion of trade and peace, by closer Imperial trade relations. To this end the Prime Minister of Australia dwells on Britain's need for developing new markets, on the value of the Empire as a market—great at present, and still greater in view of developments like that of the Murray Valley, where 2,000,000 acres when irrigated will call for a population of 750,000—on the value of the Empire as a source of raw materials, *e. g.* wool and cotton, and the benefit to Britain of the preferences given by the Dominions.

Journal of Institute of Bankers.

DECEMBER, 1923. *Inaugural Address.* SIR HERBERT HAMBLING. The President offered many wise observations on the subject of Unemployment. *British Government Finance.* HENRY HIGGS, C.B. I. Our Chancellors have not been selected as carefully as Finance Ministers should be, and are in some countries. Gladstone—vainly now descried as parsimonious—was exceptionally qualified. "Poor limited humanity cannot see far in finance without the aid of economic spectacles."

JANUARY, 1924. II. Having pointed out the difficulty of obtaining an expert Chancellor of the Exchequer—one "with a head for figures, not merely a figure-head"—Mr. Higgs goes on to show that the Treasury and the House of Commons do not exercise

adequate financial control; and he recommends the appointment of an Inspector-General of Finance who should detect waste and bad management.

III. The third lecture forms a contribution to the theory of taxation : illustrating by fresh instances the truth that "two and two in the Customs do not make four," and holding the balance evenly between the taxation of income and of capital.

Bankers' Magazine.

JANUARY, 1924. *Back to the Gold Standard.* SIR CHARLES ADDIS. There is nothing to induce us on balance to substitute for our automatic system, with all its imperfections, any scheme of managed currency. *Changes in the Price Level of Industrial Commodities.* E. G. PEAKE. The writer, who in a recent work showed the correlation between the average prices of groups of commodities, here exhibits the percentage which the relative price of each commodity (as given in Sauerbeck's index-number) forms of the total index-number for any year or period; thus further assisting the statistician to contemplate the *dispersion* of relative prices.

Journal of the Institute of Public Administration.

JANUARY, 1923. Vol. I, No. 1. *Inaugural Address by the President.* LORD HALDANE.

APRIL. *Aims of the Institute of Public Administration.* VISCOUNT MILNER. Interesting experiences of administration conclude with a suggestion that Civil servants might be more popular, less inelastic, if they were not stuck in the same office doing the same work from twenty to sixty years of age. *The Growth of Administrative Discretion.* H. J. LASKI. The decision of the House of Lords in the *Arlidge* case has secured the discretionary power of administrators. Safeguards against its exercise are required. But the initiative of administrators must be encouraged, in spite of the historic anonymity of the public service.

JULY. *Administration of Business and Public Affairs.* SIR JOSIAH STAMP. There is resemblance between the two kinds of administration in the devolution of tasks, from superiors who dictate general purposes to subordinates who have discretion in the choice of means; but there is contrast in respect of (1) consistency which Civil servants must maintain in the treatment of like cases, whereas a business firm is not obliged to sell margarine of exactly the same quality in 1922 as 1918, (2) Treasury control which prevents taking risks, (3) "marginal return" which is not regarded *e.g.* by the Post Office in the delivery of letters to out-of-the-way districts.

International Labour Review (Geneva).

NOVEMBER, 1923. *Social Insurance and International Legislation.* K. KRZECZKOWSKI. There is advocated a new type of insurance : against the loss of earnings or income independently of the causes thereof. *Labour Legislation in Hungary.* DR. PAP.

DECEMBER. *The Fifth Session of the International Labour Conference.* Factory Inspection was the main subject of the discussion. *Workers' Sickness Insurance in Austria.* PROF. F. HAWELKA.

Indian Journal of Economics (Allahabad).

OCTOBER, 1923. *Economic Geography.* H. W. LYONS. *The Imperial Forest Research Institute, Dehra Dun.* H. STANLEY JEVONS. *The Theory of Distribution.* CLARK A. WARBURTON. *A Deccan Village under the Peshwas.* HAROLD H. MANN. The records of a typical village under Maratha rule, beginning in 1698, are analysed, showing, among other interesting features, the variation in the charges imposed, the stability of the village system little affected by the vicissitudes of dynasties. *The Bases of Indian Economy.* B. G. BHATNAGER. *Early Commerce of India* (I). L. K. HYDER. The commercial relations of India with Western countries from 500 B.C. to A.D. 500 are the subject of this first study.

Quarterly Journal of Economics (Cambridge, Mass.).

NOVEMBER, 1923. *The United States Steel Corporation and Price Stabilisation.* A. BERGLAND. The policy of price stabilisation has been more effective with standard steel rails than with any other commodity. *The Future of Railway Control.* R. F. MCWILLIAMS. Eventually not stockholders only, but bondholders and employees will obtain a share in management. Industrial war in this branch will have ceased. *The Theory of International Values.* FRANK D. GRAHAM. Many received theories and approved theorists are condemned. Mill's exposition turns on an exceptional case. Bastable likewise errs. *The Life and Work of Max Weber.* CARL DIEHL. The *éloge* of a great German sociologist.

The American Economic Review (Cambridge, Mass.).

DECEMBER, 1923. *Currency Inflation in Eastern Europe, with special reference to Poland.* E. DANA DURAND. The relation of foreign exchange to internal purchasing power and other nice points having been discussed, there is recommended the stabilisation of the paper at its present value. *Importance of the Retail Trade in the United States.* L. B. MANN. Retailing ranks third among American industries as judged by the number of the workers and the value of their work. *Trade Union Development in Soviet Russia.* AMY HEWES. The new economic regime reviving manufacture for profit and the individual entrepreneur has reanimated trade unionism.

The Journal of Political Economy (Chicago).

DECEMBER, 1923. *German Taxation Policy in the World War.* R. R. KUCZYNSKI. While the German Empire doubled its tax revenues, Great Britain trebled them; and the surplus of tax revenues available for war expenses was in Great Britain more than three times as high as in Germany. Nor was the German loan policy much better than the British. *Value and the Larger Economics*, II. FRANK A. FETTER. The introduction into economics of the concept "welfare" is applauded. *Sixteenth-century Religious Thought.* R. H. TAWNEY. The claim of religion to regulate business was not immediately abandoned by the Protestants. Piquant illustrations from the New England theory are given.

But Calvin tolerated interest, and accepted the facts of commercial practice; and the English Puritans prepared the way for the *laissez-faire* doctrine of the classical economists. *German Commerce in the Middle Ages.* J. W. HOFFMANN. *The Gyppo System.* An account of a method of remuneration, ranging from simple piece wage to a group piece and even more complicated contracts, which has recently grown up in the North-west pine belt.

Annals of the American Academy of Political and Social Science (Philadelphia).

NOVEMBER, 1923. *Psychology in Business.* A series of articles illustrating the play of human nature in business. Psychology in salesmanship, for instance, is illustrated by enumerating various arts employed by salesmen. The psychology of saving is connected with the instinct of children to make collections (of birds' eggs, shells, etc.).

JANUARY, 1924. *The Price of Coal, Anthracite and Bituminous.* The subject is discussed under several heads by numerous writers.

Bureau of Labor Statistics (U.S. America).

NO. 340, 1923. *Chinese Migrations, with special reference to Labor Conditions.* T. A. CHEN. An interesting history from early times down to the employment of Chinese in France during the Great War.

Journal des Économistes (Paris).

DECEMBER, 1923. *L'expérience économique et financière du royaume des Serbs, Croates et Slovènes.* M. STOYADINOVICH. The policy of setting free the exchange and reducing tariffs, has proved beneficial to Yugo-Slavia.

JANUARY, 1924. *Les Réparations des dommages de Guerre.* N. MONDET. *La Commission des réformes.* G. DE NOUVION.

Revue d'Économie Politique (Paris).

NOVEMBER–DECEMBER, 1923. *La question agraire en Grèce.* H. SIMONIDE. The recent reform creating small properties out of large estates that were not economically managed is described and justified. *La question agraire en Pologne.* Z. LUDKIEVICZ. *Lutte contre le trust des frigorifiques en République Argentine.* LAFONT.

Jahrbücher für Nationalökonomie und Statistik (Jena).

NOVEMBER, 1923. *Schumpeter's System* (I). DR. A. LAMPE. *Ueber die derzeitige Bewertung von landwirtschatichem Grundbesitz für Beleihungszwecke.* DR. W. ROTHKEGEL. Borrowing on the security of land in Germany is much more difficult now than before the War.

DECEMBER, 1923. *Schumpeter's System.* ADOLF LAMPE. The study of the Austrian economist's development of the theory of Distribution is continued and concluded. *Agrarpolitik als Wissenschaft.* H. SCHACK.

Zeitschrift für Volkswirtschaft und Sozialpolitik (Vienna).

Band III. Heft 7–9. *Landwirtschaft in Räterussland.* KURT WIEDENFELD. An account of the present land system in parts of Russia. *Der Credit-Mobilier Gedanke.* H. M. HIRSCHFELD. *Index und Wechselkurs.* DR. O. ZAGLITES.

Giornale degli Economisti (Rome).

NOVEMBER, 1923. *Sullo sviluppo delle dottrine economiche: Riccardo.* DELLA VOLTA. The second centenary of Adam Smith's birth, the first of Ricardo's death, is celebrated by tracing the development of theories which they originated.

DECEMBER. *I mercati della cirenaica.* POMPEO GORINI. The technicalities of Standard Deviation and Correlation are applied to the vicissitudes of the markets in Bengasi, Meig and other localities in Italian Libya.

La Riforma Sociale (Turin).

NOVEMBER–DECEMBER, 1923. *La Libertà è fine è tutto.* MICHELANGELO BILLIA. Liberty is extolled as an end in itself, not subordinated to any superior utility. *La revisione degli estimi catastali.* L. EINAUDI. *La pressione tributaria nei grandi communi italiani.* F. A. REPACI.

Metron (Ferrara).

VOL. III., No. 2. *The Possibility of Extending Human Life.* L. I. DUBLIN. The American statistician predicts a gain in the Expectation of Life at the earlier ages; a gain of five and a half years at age twenty, of three and a quarter years at age forty, and so on to age seventy; after which no improvement.

Revista Nacional de Economía (Madrid).

VOL. XV., No. 46. *El Camino de la riqueza.* VIZCONDE DE EZA. An account of the third National Congress of Irrigation (*de Riegos*); which discussed not only hydraulic technicalities, but also the relations between cultivators and even more general themes. *Sociedades y economías proletarizadas.* A. HEICHEN. Describing his theory as a "supplement to the doctrine of plus-value," the writer seems to extend Marx' doctrine to the relations between States. Plus-value is said to migrate from the "proletarised" to the bourgeois countries.

No. 47. *El problema agragrio en España.* ANDRÉS BERTHE. *La psicología económica del español.* An interesting delineation of a national character which is by no means that of the typical "economic man."

NEW BOOKS.

English.

AMBEDKAR (B. R.). The Problem of the Rupee. London: King. 1923. Pp. 309.

APPLETON (W. A.). Unemployment: a Study of Causes, Palliatives and Remedies. London: Hodder and Stoughton. Pp. 157. 1*s*.

BELLERBY (J. R.). Control of Credit as a Remedy for Unemployment. London: King. 1923. Pp. 120. 3*s*.

BHALLA (RAM). Report on Economic Survey of Bairampar, with Special Reference to three other Villages in the Hoshiarpur District. (Undertaken under the auspices of the Standing Board of Economic Enquiry, Rural Section, Punjab.)

[A detailed description of Indian village life, bringing out among other general features the injurious fragmentation of land, the restriction of over-population by abstention from marriage, the harm done by water-ways passing through the village.]

BOGDANOFF (A.). A Short Course of Economic Science. Labour Publishing Co. 1923. Pp. 391. 5*s*.

[J. Fineberg of Moscow, the translator, explains that "Comrade Bogdanoff's book is a comprehensive and popular introduction to the study of the profound and enthralling principles of Marxian philosophy." It is designed as a "text-book for the study of Social Science from the Marxian point of view."]

BRAND (R. H.). Why I am not a Socialist. (The "New Way" Series, No. 3.) London: *Daily News*. Pp. 32. 6*d*.

[The arguments against State Socialism are represented as overwhelming. "Does anyone who really knows human nature, who really grasps the truly immense complexity, intricacy and delicacy of national and international trade, industry and finance actually believe that Government could control and guide all these infinitely multifarious actions which now are guided by supply and demand acting through the medium of prices?" "Production would be slowed down by the reluctance of Government to take the risks on which progress depends. Enterprise is the very life-blood of industry. Our theorists have a very vague idea of the adventurous and risky nature of commercial life." . . . Risk requires profits; investment and interest are not wrong. State Socialism would not bring greater liberty to the wage-earner or alleviation of his monotonous toil.]

CLAY (HENRY). Property and Inheritance. (The "New Way" Series.) London: *Daily News*. Pp. 30.

[The inequality in the distribution of property, six per cent. of the population owning half the income of the country and three-fourths of the property, might be mitigated by restriction of inheritance on the lines of Rignano or Dr. Dalton. But the reduction of private property thus effected should be distinguished from the diffusion which might be effected by compulsory division at death.]

DAVENPORT (E. H.) and COOKE (SIDNEY RUSSELL). The Oil Trusts and Anglo-American Relations. London: Macmillan. 1923. Pp. 272.

HOOK (A.). The Worker's Share. Labour Publishing Co. 1924. Pp. 124. 3*s*. 6*d*.

[Described by the publisher (on the wrapper) as "a practical statement of how the worker may obtain the due reward of his labour."]

KHAN (SHAFAAT A.). The East India Trade in the Seventeenth Century in its Political and Economic Aspects. Oxford University Press. 1923. Pp. 325.

LAYTON (W. T.). Budget of 1933. ("New Way" Series.) London: *Daily News*. Pp. 31. 6*d*.

RAWLINSON (ALBERT). The True Principle of Money and its Application in Stabilising the Currencies. London: King. 1923. Pp. 16.

ROBERTSON (D. H.). The Ebb and Flow of Unemployment. ("New Way" Series.) London: *Daily News*. Pp. 23. 6*d*.

[Unless private enterprise can clear itself of the reproach of needlessly generating and tolerating the present instability, it cannot be expected that the private worker will continue to bear the ills he has.]

SALZMAN (L. F.). English Industries of the Middle Ages. Oxford: Clarendon Press. 1923. Pp. 360.

Shipping. (Studies on Labour and Capital, No. VI. Prepared by the Labour Research Department.) Labour Publishing Co. 1923. Pp. 64. 2*s*. 6*d*.

SIMON (E. D.). Houses for All. ("New Way" Series.) London: *Daily News*. Pp. 27.

SPALDING (W. F.). Bankers' Credits. (Second edition.) London: Pitman. 1923. Pp. 125.

American.

BRISSENDEN (P. F.) and FRANKEL (E.). Labor Turnover in Industry: a Statistical Analysis. New York: Macmillan Co. 1922. Pp. 215.

[The first-named author is an Assistant Professor in Columbia University, and his collaborator has been a special agent of the United States Labor Department.]

BRUWER (A. J.). Protection in South Africa. South Africa: Stellenbosch. 1923. Pp. 203.

[A thesis by a candidate for the degree of Doctor in Philosophy in the University of Pennsylvania.]

CLARK (J. MAURICE). The Economics of Overhead Costs. Chicago: University Press. 1923. Pp. 487.

CROSS (IRA B.). Domestic and Foreign Exchange: Theory and Practice. New York: Macmillan Co. 1923. Pp. 572.

Harvard Index of General Business Conditions: its Interpretation. Cambridge (Mass.): University Committee on Economic Research. 1923. Pp. 16.

["It is clear from an examination of the 1903–14 Index Chart that if this Index had been available at the time, the important changes of the eleven years which it covers could have been forecast with very great certainty."]

JONES (ELIOT). The Trust Problem in the United States. New York: Macmillan Co. 1922. Pp. 598.

KOBAYASHI (U.). War and Armament Taxes of Japan. (Carnegie Endowment for International Peace.) New York: Oxford University Press. Pp. 255.

[Production was not greatly affected by war taxes, but distribution was altered to the detriment of the poorer classes.]

MONROE (ARTHUR E.). Monetary Theory before Adam Smith. Cambridge (Mass.): University Press. 1923. Pp. 312.

MOORE (HENRY LUDWELL). Generating Economic Cycles. New York: Macmillan Co. 1923. Pp. 141.

[Cycles of approximately eight years in the yield per acre of British Crops, and consequently in other economic phenomena, are probably caused by the planet Venus in its eight-yearly periodic motion with respect to the earth and sun.]

French.

ANDRÉADÈS (A.). La population anglaise avant pendant et après la grande guerre. Ferrara: Taddei.

[The book being published under the auspices of *Metron*, its appearance has been delayed for two years by the typographical difficulties which beset that journal. With wonderful knowledge of British affairs, the Athenian Professor compares our country with other countries in respect of the injury to population caused by the War. One most serious result, in his view, is the increase in the large number of self-supporting spinsters forming a "third sex." Not ignoring the dangers of restricted natality, and the difficulty of relieving over-population by emigration to the colonies, he yet is led to think that "the English race, which has so astonishingly developed from 1770 to 1921, has before it the most splendid future."]

BADULESCO (VICTOR). Les finances publiques de la Roumanie. Paris: Giard. 1923. Pp. 74.

RIST (CHARLES). La déflation en pratique. (Bibliothèque internationale d'économic politique.) Paris: Giard. 1924. Pp. 172.

Unemployment. General Meeting of the International Association pour la lutte contre le chômage. Geneva: Sonor. 1923. Pp. 601.

[A report of the proceedings of the second meeting (at Paris last September) of the Association founded in 1910 to combat unemployment. The experience of several nations was brought to bear in different languages on emigration as a remedy for unemployment, on unemployment among intellectual workers, and on other relevant topics.]

German.

ELSTER (DR. ALEXANDER). Sozialbiologie Bevölkerungswissenschaft und Gesellschaftshygiene. Berlin and Leipsic: Gruyter. 1923. Pp. 483.

[This is the eighth volume of the "Handbuch der Wirtschafts u. Sozialwissenschaften," published in separate volumes. The learned writer discourses with great freedom and some originality on Malthusianism in relation to the quantity and quality of population, on the relation of the sexes, on marriage, birth, and the interests of women (*Frauentum*), on "Eugenese," "Euthanasie" and "Eubiotik."]

HOFMANN (VICTOR). Die Devalvierung des österreiches Papiergeldes im Jahre 1811. Munich and Leipsic: Duncker und Humblot. 1923. Pp. 231.

Italian.

BERNARDINO (ANSELM). La finanza Sabauda. Vol. II. Turin: Bocca.

MARENCO (M. G.). L'emigrazeone ligure nell' economia della nazione. Genova.

MARIOTTI (ANGELO). L'industria del forestero in Italia. Bologna: Zanichelli.

NARZANI (EMILIO). Sunto di Economia politica, ripublicato con aggiunte da A Loria (xvii edizione). Fo.

SEGRE (A.). Storia del Commercio. Turin: Lattes. 1923. Pp. 1208. 2 vols.

[The first volume traces the history of Commerce from the earliest times down to the French Revolution; the second volume covers the period 1789–1922. The author is a "Libero Docente" in the University of Turin.]

SUPINO (CAMILLO). Principii di Economia Politica (vi edizione). Milan: Alborghi.

VINCI (FELICE). Statistica Metodologica. Padua. 1924. Pp. 242.

THE ECONOMIC JOURNAL

JUNE, 1924

ANNUAL MEETING OF THE ROYAL ECONOMIC SOCIETY

DISCUSSION ON MONETARY REFORM

A WELL-ATTENDED meeting of Fellows and their friends was held on April 14th at the London School of Economics under the Chairmanship of Lord Milner, one of the Vice-Presidents of the Society. After the transaction of the formal business of the year, a discussion on Monetary Reform was opened by Professor Cannan. The principal speeches are reported below.

PROFESSOR EDWIN CANNAN

Having been recently accused of believing that the last word in monetary theory was said in the elementary text-books of years ago, I have been trying to discover what these text-books really did say. In the course of this research I came across, in Walker's *Political Economy* (p. 128 in ed. of 1892), a passage which shows at any rate the unchanging character of monetary theorists. He says, " Men who are candid and even liberal in politics or religion become furiously or stupidly fanatical as soon as their views on money are controverted," and recalls that Sir Walter Scott makes one monetary theorist write to another, " In your ill-advised tract you have shown yourself as irritable as Balaam and as obstinate as his ass."

For to-day, at any rate, I mean to endeavour to conceal my furious or stupid fanaticism, and to dwell rather on the general improvement which has taken place, chiefly in consequence of recent experience, in the views of experts, rather than on the points on which they differ.

The improvement which has taken place may be shortly summarised in the statement that the relation between the quantity of currency and its purchasing power has been cleared

up. There is no denying, I think, that the text-books of years ago—not only the elementary ones—gave a very muddled, unsatisfactory account of this relationship. They asked us to think of the whole quantity of money in existence being offered in exchange for a total of commodities (and perhaps services) of which it was impossible to form any definite conception—it was not the total in existence nor the annual or weekly production nor any other total with which we are familiar. Then it was taken for granted that we should infer that the purchasing power of the money would depend on the relative variations in magnitude of the two totals, so that if the money increased while the commodities remained stationary, the purchasing power would fall. After that it was admitted that a modification was necessary because the same piece of money could be exchanged for goods more than once. To meet this it was said that the purchasing power of money depended not only on its quantity but also on its rapidity of circulation. Nothing, as a recent writer has pointed out, was said about the possibility of a commodity being exchanged for money more than once. The doctrine never carried conviction to the ordinary intelligence, and never will, even if much more carefully re-stated.

It has now been entirely scrapped, and we are asked to look at the matter in a much simpler way. Currency is regarded like any other durable goods, such as ships or houses, which form part of the material equipment or capital of the community. We start from its value or purchasing power as we find it at any moment, and then ask ourselves how that will be affected by changes in the supply of and the demand for currency, thinking of the supply and demand just as we think of them in regard to houses, the supply being the whole stock in existence, and the demand being furnished by people who want to hold portions of that stock.

The supply side of the matter is simple enough. Additions to the stock tend to diminish the value of the unit of currency just as additions to the stock of houses tend to diminish the value of the unit of housing. They have to be put on the market by the issuer himself or by some one to whom he lends them, and in either case this means more units of currency spent in buying commodities and services; and more spending, in the absence of increase in commodities and services, means higher prices, which is the same thing as diminished purchasing power of money.

The violent experiences of recent years have not only given us plenty of examples of this far more striking than any which were available to the writers of the text-books of years ago, but

have completely cleared away a difficulty which was often felt, and that too even after the war had been proceeding for some time. This is the fact that a rise of prices attributed to increase of currency was often found on careful inquiry to have preceded that increase. The unbeliever naturally adopted the converse of *post hoc ergo propter hoc*, and argued *ante hoc, ergo non propter hoc*, and even alleged that the rise of prices, which he usually ascribed to some quite impossible cause, compelled or called for the increase of currency, instead of being occasioned by it. Nowadays we can see that there is nothing more anomalous in people putting the value of money down some time before an additional issue is made than there is in their putting the value of cotton or wheat down some time before a plentiful harvest. In matters of prices man looks before rather than after. An expected change of prices causes prices to change at once: it is not in the least necessary that the public should have clear or correct opinions about the cause of the rise, but only that they should expect it.

On the demand side the experience of recent years has been even more useful than on the supply side. The old plan was to represent the demand for currency as coming from the people who wanted to sell goods, as if these people wanted money to eat instead of merely as a means for getting other goods or services in exchange. Attention was directed to the quantity of money in actual circulation or passing from hand to hand, in entire forgetfulness of the impossibility of assigning any magnitude whatever to the amount passing at a point of time, a *point* having itself, as Euclid says, neither parts nor magnitude. The amount passed in a day or a week would have a meaning, but the amount passing at a given moment had none. All this is now completely changed. Hoarders, defined by Mill as persons who keep money in reserve for contingencies which do not occur, and also the much more numerous persons who keep money in reserve for contingencies which *do* occur, are in the modern view the real demanders of currency, just as the persons who want houses to live in are the real demanders of houses. There is no longer any idea of balancing all the currency against some loosely conceived total of commodities for sale, but a definite conception of each person wanting to hold a sum of currency sufficient to buy her or him (for the "house-keeping money" of the matron is greater than the pocket-money of the master) the collection of commodities and services which she or he is likely to have to pay for in cash before the next replenishment of the holding. I do not contend that this conception was wholly unknown before the war:

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rummaging among old lecture notes, I find that I was teaching it orally ten years before I put it in a book in 1918. But the currency troubles of the war secured its wide acceptance by experts. They saw that currency depreciation was causing enormous increases in the amount of currency held per head of inhabitants in different countries, while at the same time the purchasing power of this increased holding was greatly reduced. The average German's holding of marks, for example, would increase from say 100 marks to 1,000,000 marks, and yet (owing to the depreciation) this holding would only buy him a collection of commodities about, say, one-tenth as large as the old 100 marks used to buy him. Then the experts would infer, quite justly, that this collection must be far too small for convenience, so that if the fear of further depreciation could by any means be allayed, the holders of currency would try to enlarge their holdings, which would reduce prices if no more currency was printed, or absorb a large amount of new issue without any rise of prices if the press was allowed to go on for a time. This line of argument, which was perfectly borne out as time went on by actual experience, is obviously founded on a basis of looking to holders of currency for the intensification and extension of demand for currency.

Nothing nowadays can be regarded as properly received into the economic church till it has been duly christened after some letter of the alphabet, so we may note that the collection of commodities commanded by the holdings of currency has been named k in Mr. Keynes's restatement of the quantity theory in his equation,

$$n = pk,$$

k being doubtless chosen not for any personal reasons but because it is the same thing as a hard c, and c (which *I* might for personal reasons prefer) for Collection of Commodities Commanded might be confused with c for Cash or Currency. Mr. Keynes's n stands for the total of currency and p for price-level, so that the equation enshrines the truism that the total of currency equals the money-value of what can be bought with all the holdings of which it consists.

The importance of the new idea lies not in this truism, but in the clearer light which it throws upon causes of appreciation and depreciation of money. Those who used the old apparatus, if they recognised that increasing hoards tended to appreciation, had to regard the increase as tending to diminish the supply or quantity of money, in spite of the fact that every one thinks of the

quantity as being shown by the amount outstanding, no matter whether that is held by hoarders or others: it is much simpler to think of the hoarder along with any other holder who is increasing his stock of currency as demanding more currency.

Again, the old apparatus was very unsatisfactory in relation to the effect of increased banking facilities. Such facilities were supposed quite rightly to "economise" money, and so to tend to reduce its value, but how they did it was left in great obscurity. The "use" or employment of money was supposed to be diminished, but why that diminished its purchasing power was unexplained. With the new apparatus we can see at once that the advent of a bank in a place formerly twenty miles away from a bank will straightway diminish the demand for currency by causing the holders in the place to be content with smaller holdings than before, while the bank's holding kept at the command of the customers will be much less than enough to counterbalance this.

To give one more example, the old apparatus was quite insufficient as an equipment for any one who wanted to explain the enormous divergencies between the rates of increase of currency and the rates of depreciation which we have seen in recent years. With the aid of the new conception we can attribute them with ease and certainty to the varying fears and hopes of holders of currency which lead them to try to reduce their holdings to the lowest possible point at one time and to increase them largely at another.

All this improvement, by clearing away difficulties about the relation between quantity of currency and prices, makes it far easier than it was before the war to see that for the maintenance of the value or purchasing power of a currency limitation of supply is essential.

It was for want of our experience that the pre-war theorists never made it plain to the public that the value of their currency was actually kept up by strict limitation of supply. Gold, it is true, could be turned into coin in unlimited quantities by any one who could get it in unlimited quantities, but nobody could do that; there was a limited quantity above ground, and nobody could get more out except slowly and at considerable cost. Paper currency existed, but was limited by various regulations, and over and above those regulations, by convertibility, to the amount which could circulate without falling below the value of the gold it promised to pay. But that the virtue of limitation was not clearly grasped is shown by the persistence with which textbooks continued to assert that the value of our token coins was

kept up by limitation of their legal tenderability instead of, as of course it really was and is, by the limitation of their issue to the amount which will circulate at par.

For want of recognition of the necessity of limitation, at the beginning of the war nearly all countries—most of them without the smallest excuse except a desire to be in the fashion—suspended their regulations and convertibility without instituting any other system of limitation or apparently ever thinking that any kind of limitation was necessary. The only difference between the countries was that some allowed their Central Banks to make a profit by lending the additional legal-tender inconvertible notes to private persons as well as to the Government, while others, more prudent, like the Bolshevists and the British, took care that the notes issued should buy commodities and services for the Government only.

The natural consequences followed: the issues grew and grew, and depreciated enormously, and we have not seen the end yet except in the few countries which have returned to gold.

Some limit is absolutely necessary, and the choice for all except currency cranks is between founding the limitation on some parity, old or new, with gold, and founding it on a parity with some collection of commodities such as is summed up in an index-number of prices.

Of these two principles, the second or general-price principle is naturally far more attractive to the monetary theorist as an ideal to be worked for in the future. To tie the purchasing power of money to that of a single metal, though that metal is a very fine one which would be put to an immense number of most important uses if it were less scarce than it is, has been rightly described as an expedient fit only for a barbarous age. But can any one who has lived through the Great War have any doubt that a barbarous age is precisely what we have for the moment to provide for? The cruder and simpler principle may suit us best for the present and the immediate future. We, barbarous mankind, are still divided into suspicious and malevolent tribes, occupying territories which we regard as our tribal properties. There is not the least chance of the various nations agreeing on any uniform system of limitation of currencies by prices which would give us the stability of international exchanges which we possessed before the war. On the other hand, there is every probability of a general return to the gold principle, which would give us that stability. On this I think Mr. Keynes was unquestionably right when he said in the *Manchester Guardian Recon-*

struction Number of April 20th, 1922, " I see no other solution of stabilisation " (international exchange stabilisation, that is) " except this traditional solution—namely, a gold standard in as many countries as possible."

For the advantage of exchange stabilisation we ought to be prepared to sacrifice a good deal of the other kind of stability—stability of domestic prices between one time and another. Particularly should we be ready to do so if we happen to belong to a small country with a large foreign trade and extensive financial interests outside itself.

But it is difficult to believe that we should in actual fact sacrifice *any* internal stability by re-adopting the " barbarous " principle of limitation by parity with gold rather than the more refined principle of limitation by general prices. The limitation by gold can be enforced by convertibility in a simple and straightforward way, as it was in the past. I am inclined to admit that the paper pound might conceivably be made convertible in a roundabout way into the large basketful of commodities which serves as the basis for an index-number of prices, but the proceeding would be complicated, unintelligible to the ordinary mind, and liable to be thrown out of gear by changes taking place while the necessary statistics were being made up. It seems to be admitted by the best exponents of the general-prices system that the necessary measures would have to be taken by anticipators rather than by clerks working on statistics collected some days or weeks ago. So long as the anticipators were honest and intelligent and anticipated correctly, things would go well, but we may be permitted to doubt whether on the whole the short-period vagaries and the long-period general biases of the anticipators would not more than equal the short and long period fluctuations of gold.

I do not say that gold must for ever continue to be the best possible standard. I am enough of an historian not to believe in the permanence of anything. As soon as we economists have been a little more successful than we have hitherto been in getting elementary ideas into the heads of the public, it will become possible to modify the gold standard either by working on the supply of gold and the demand for it or by altering gold parity with currencies in such a way as to make the standard more stable. Such measures will have greater chance of success if they are taken by a world already on the same standard.

However that may be, one thing stands out as absolutely certain, and that is that to one or other of the two principles of

limitation—limitation by the price of gold or limitation by general prices—we must soon adhere. I believe I shocked some people a little time ago by saying that it was false in the long run that "bad money drives out good," but I was perfectly right. Good money does in the end overcome bad, even when the bad is numbered by trillions. The countries which at present adopt no principle of limitation, but simply abuse the foreign speculator after selling him a great quantity of worthless paper, and then try to borrow from him, may have a long career of depreciation yet before them, but they will pull up at last. Countries like Great Britain and France which have adopted fixed and arbitrary limits bearing no relation to the prices of commodities or gold will at length come to see that though such limits when actually operative are far better than nothing, inasmuch as they prevent further depreciation beyond a certain point, yet they provide neither stability of internal prices nor stability of foreign exchanges. The recent experience of France is instructive on this point.

Mr. Hawtrey

Before I begin I ought perhaps to make it quite clear that, though I hold a post in a Government Department—in the Treasury—what I am going to say is exclusively my personal opinion and has nothing at all to do with official views.

I think we have all been very much interested in Professor Cannan's survey—a very non-controversial survey—of the recent growth of opinion on monetary theory. He really dealt very briefly with the subject of this afternoon's debate, that is to say, Monetary Reform, and I propose to pick up the subject rather where he left it. There are two quite distinct questions: there is the question that Professor Cannan raised of what ought to be our permanent monetary system; and there is the more immediate question of how we are to get from the existing condition of things to that reformed state. Professor Cannan mentioned the two possible regulating principles—convertibility into gold, and the determination of the value of the currency unit on the basis of an index-number of commodities. I am not sure that he made quite clear the possibility of the synthesis which unites those two opposites, which received approval at Genoa, that is to say, the adoption of a gold standard by all the countries that can, all the countries that hope to have sound currency at all—the adoption of a gold standard, and the regulation of the value of *gold itself* through the action of Central Banks, on the basis of an

index-number. That Genoa solution seems to me to be the right one. I think there are a great many disadvantages about the purely tabular standard, dissociated from gold. I do not propose to enlarge upon them, but I think there are great disadvantages, and I think also that the gold standard on the pre-war basis is very unsatisfactory indeed.

Now, assuming that we have got to get back to a sound currency of one of those three kinds, what ought we to be doing here and now? That really is the more controversial question of the two, and there are several schools of thought: there are those who desire a restoration of the pre-war parity by a renewed process of deflation; there are those who propose to stabilise our unit at its existing value, either without a gold standard or by devaluation with a lower standard, a smaller gold content; and finally there is another school of thought that proposes to wait and see—to do nothing, in the hope that presently the value of gold itself in the course of its fluctuations will drop down to parity with the pound. The real division of opinion, the most acute division of opinion, is between those who propose immediate deflation and those who do not, and opinion on that subject depends upon what I regard as one of the most important principles established in recent years in monetary theory, that is to say, the connection between price movements and unemployment. I think it is pretty well recognised by most practical business men—I am not sure it was not recognised by them before it was recognised by economists—that falling prices do cause trade depression and unemployment. As a matter of fact Sir Charles Addis, who is going to speak after me, has expressed himself quite emphatically on the subject, though I believe that he himself would be prepared to face deflation. I expect many of you present have read the very important and interesting speech that he made a few months ago to the Institute of Bankers on the return to a gold standard. Although he is one of those who are in favour of getting back to the pre-war gold standard as early as possible, by deflation if necessary, he was quite clear that falling prices do cause unemployment. He himself, I daresay, will be willing to take up the point and elaborate his own views. On that occasion he called attention to the fact that the recent unemployment in this country is similar in kind to the unemployment that we suffered from during the trade cycle before the war, and that I believe to be true, and I will go so far as to say that the deflationary movement that followed the inflation of 1919–20 is practically the sole important cause of the unemployment that we have been suffering

from, so far as it is abnormal. Well, I don't know that Sir Charles Addis would go so far as that, but at any rate he would agree, and I believe he speaks for the great bulk of City opinion, that falling prices do cause unemployment.

Turning from the opinion of business men, and from economic theory, to facts, there are masses of statistics to bear that out, both before and since the war. There is one particular example that I should like to refer to, which has been experienced since the war. It is commonly alleged that the unemployment we have been suffering from, although it may have been caused partly by deflation, is mainly due to the failure of our export markets in Europe. We are not alone in being dependent on export markets. There are other manufacturing countries in Europe, and some before the war were very much more dependent on the European export markets than we are. Switzerland during the war had 370 francs per head of exports to all quarters (about the same as we had), and whereas 35 per cent. of our exports went to European markets, 75 per cent. of the Swiss exports went to European markets. Swiss unemployment statistics are available in the form of the numbers on the live registers of the employment exchanges. In September 1920, at the culmination of the boom of that year, they had 7178 names on their registers. By February 1922, when prices had fallen by something approaching 50 per cent., they had 99,500. From that date prices rose steadily. The index-number rose from 160·2 to 186·5 in April 1923. By July 1923 their total of unemployed had fallen from 99,000 to 22,000. That in a country far more dependent on European markets for exports than we are, is a most striking result. It shows that if you have only a moderate rise in prices you can, despite all the disadvantages of the European market in the years when it was at its worst, reduce unemployment to what may practically be called normal dimensions: 22,000 is not abnormal for Switzerland.

Now what does this lead up to? It leads to the conclusion that, if unemployment is as important as we believe it to be, it is absolutely futile to start raising the value of your unit in terms of commodities when you are already suffering from unemployment. That, in my opinion, rules out deflationary measures at the present time. It may be that six months or a year hence unemployment will have fallen to such a level that it will be possible to raise the value of the pound in terms of commodities without causing very severe unemployment. If you start with good employment, and then produce a slight fall of prices, the result

is tolerable. If 1,000,000 unemployed is your zero point when you begin reducing prices, it means you stop the revival, and the social consequences of that it would be impossible to face under existing conditions. If that is so, that leaves us to the choice of waiting, or devaluing the pound.

Well, some people would argue that there is no very great harm in devaluing the pound. There is no special virtue in the pre-war gold value of 113 grains of fine gold. It might be reduced to 100 grains or thereabouts, and in a way it is true there is no great virtue in pre-war parity. But there is one fundamental advantage in getting back to pre-war parity if we can: that is, that if we have got back there with a certain amount of struggle, have regarded it as an end for several years, and finally achieve it, everybody believes we shall stay there. If we devalued, though we started with 100 grains, it might be convenient to change it to 85 grains later, and there would not be that confidence in the gold value of the currency which is so valuable in great financial affairs. So if we prefer not to devalue the pound we are left with the alternative of waiting, and there we depend upon the world value of gold. The world value of gold is at the present time determined by the credit policy of the Federal Reserve Board, and it is to be hoped that in the course of a year or two the process by which their supply of gold is accumulating, and gradually stifling their control of credit, may lead to a moderate depreciation of the dollar, sufficient to bring it back to parity with sterling. Then from that point we shall be prepared to determine our future permanent monetary policy, and at that point I shall hope to see the Genoa resolutions come into operation, that is to say, the retention of gold and the agreed adoption by international co-operation of an index-number. That would be possible because the gold supply of the Central Banks of the world is so great that they can absolutely determine the value of gold in terms of other commodities. If their stock of gold is twenty or thirty times the annual consumption for non-monetary purposes, it is possible for them to regulate gold practically as they please. Therefore what is really required is an agreement between the great Central Banks, above all between the Federal Reserve Board on the one hand and the Bank of England on the other. A very interesting document has recently appeared—the Annual Report of the Federal Reserve Board—and they make clear the process by which they have in fact been regulating credit the last two years. It is hardly going too far to infer that they would be prepared to adopt a plan not very different from that of Genoa.

How far they would go it is difficult to say until they begin the discussion. On this side Sir Charles Addis expressed approval of the same scheme in the speech to which I referred before, in which he argued so emphatically that we should return to gold standard. It is encouraging to find that such high authorities recognise the enormous advantages of stabilising purchasing power with relation to an index-number.

Sir Charles Addis

Whatever our opinion of stabilisation may be, we are all in favour of stability—stability of policy as well as stability of prices. Instability of policy is no less dangerous than instability of price. Nothing can be worse than uncertainty. Better a defective policy which is fixed than a complete one which is uncertain. It is of the first importance in currency matters to know the goal at which we aim. We must know where we are and whither we are bound. The pronouncement of Mr. Baldwin last July in favour of stabilisation at the level of that time and, it must be added, the hesitating and equivocal utterances of some of our bank chairmen, left the public at home, and, what was more serious, our customers abroad, in some doubt as to what our monetary policy really was, whether indeed England could be said to have any definite monetary policy at all. All this uncertainty and obscurity have happily been dispelled by the timely statement of the present Prime Minister. All the world knows now that the official policy of this country is directed quite definitely to the restoration as soon as possible of the pre-war gold standard. The countries of Europe know it. Our ally Japan knows it, and, with Holland, Scandinavia, Switzerland, etc., is believed to be only waiting for our lead to get back to gold.

The British Dominions overseas know it and welcome the official confirmation of the early return to the gold standard contemplated in the unanimous report of the committee on currency at the Imperial Economic Conference. The country stands definitely pledged to return as soon as possible to the gold standard which prevailed before the war. It is no wonder if the sound money party is encouraged by this unanimity. It might be different if other countries formerly on a gold basis were disposed to discard it in favour of a paper currency, but of that there is no sign. The unanimity is complete. Every country which has ever possessed a gold standard, whether for good or evil, seeks or professes to seek a return to the gold

standard. The only doubt is as to their ability to ensue it. But even the timorous among us may take heart of grace in the reflection that we shall not be acting alone. The danger they so much dread of an inundation of American gold is likely to be lessened by diffusion among several countries and mitigated, let us hope, by the co-operative action of the Central Banks contemplated by the Genoa Conference resolutions. Nor should it be forgotten that in any event there is a weapon to hand in the payment of the Allied debts to the United States. The annual purchases of dollars for this purpose may well prove an efficient safety-valve on the maintenance of a rise in the New York sterling exchange above parity, which is an essential condition of continued shipments of gold. In fact the gold standard policy holds the field and only the most cogent and convincing arguments should induce us to abandon it in favour of any new and untried currency system however alluring. The burden of proof lies on those who propose the change.

We are asked to substitute a managed currency based upon price or unemployment index-numbers for a currency based on gold. We are asked to do so on the ground that it is more advantageous to stabilise our internal prices than to link them up to world prices. It is not denied that the mobility of gold and the relatively small changes in supply to which it is subject have made it in the past a powerful factor in stabilising prices in the long run. The complaint is that it acts too slowly; that the mischief is done before the gold standard comes into operation.

That argument seems to me to beg the question. It assumes that the gold standard is purely automatic in action. That is not so. The human element can no more be eliminated from the operation of an automatic than of a managed system of currency. In either case those who are responsible for currency control are expected to have regard to the course of prices and unemployment, as well as to the movements of gold and, since a rise in prices may precede an increase in currency, to check the anticipation of credit supply on which the rise of prices is based. It is gratuitous to assume that those responsible for the maintenance of the gold standard must necessarily wait upon a movement of gold before bringing into operation a rise in the rate of discount, as the appropriate instrument for checking a rise in prices. From that point of view the gold standard appears to be in no way inferior to a managed currency. It is superior to it in possessing an automatic signal to warn the public of what is coming, and to arouse their attention to the shortcomings of bank directors if

they fail to anticipate it. Public criticism is likely, and quite rightly, to be the more severe since the gold standard has the additional merit of being free from political influence. Its supreme value to the community is that it acts as an effectual check on any attempt on the part of Government to manufacture currency.

It is true that we have still some distance to travel before we get back to an effective gold standard, while stabilisation at the present level of prices can be put into operation forthwith. I pass over the effect on debtors and creditors, for I agree that the great bulk of existing contracts is of comparatively recent origin, and that the present level of prices presents about as near an approximation as you are likely to get to a middle term between the highest and lowest levels at which War Loans were purchased. As for the repudiation argument, I have never seen any force in that.

Stabilisation, however, may not be the same thing as stability. It has yet to be proved that the present level of prices is that which is best suited to economic production in this country. There is a present discrepancy between world prices of raw materials and manufactured articles, apart from the lag in retail prices, which requires to be adjusted; the latter are relatively too high; the urgent problem ahead is how to secure for the tiller of the soil remuneration sufficient to induce him to exploit its undeveloped wealth. British imports are 40 per cent. while British exports are 90 per cent. above pre-war prices. It looks as if we were selling our manufactures too dear and consequently selling too little of them. Is there any other way to sell more of them than to reduce the price? You may, of course, elect to maintain your internal prices and to reduce your external prices by letting exchange go hang, but this is only to transfer the instability from the price to the exchange, and I am not convinced that for a country like England, whose chief anxiety it is to export sufficient manufactures to supply her population with its daily bread, stability of price is more important than stability of exchange.

I am not sure that even the increased prominence which has recently been given to the subject of prices has succeeded in extirpating the old fallacy that, in some way which has never been explained, high prices are good and low prices bad for trade and industry. The fact is that, as Dr. Marshall says, there is no evidence whatever that a fall in prices diminishes perceptibly in the long run productivity of industry. Depression of prices is

consistent with prosperity. The employer gets less; the employee gets more. It is doubtful if the working classes have ever been so well off since, as they were during the period of falling prices that marked the latter half of the nineteenth century.

Nevertheless we must not shrink from the conclusion that, whatever the effect of low prices may be, *falling* prices are undoubtedly bad for trade and, unless prices rise in the United States, a further fall of prices in this country is a condition precedent to the re-establishment of the gold standard. I do not disguise the seriousness of such a step, but I submit that we ought not to exaggerate its extent. A year ago we were within four per cent. of gold parity, and may shortly be so again. We have already suffered a fall in prices, as registered in the index numbers, from 360 to 160. Is the comparatively small further drop, which is all that is required to bring us back to parity with gold, too great a sacrifice to ask of our people in order to restore the currency position on which the supremacy of this country in international trade and finance was formerly established? I do not believe it.

Mr. Keynes

Mr. Hawtrey has defined for us very clearly the issues to be discussed. First of all there is the problem whether we want monetary reform at all or whether we want to get back to something as near as possible to the pre-war system. Secondly, there is the question what precise device we should adopt, if we want reform, in order to bring it into operation. I will begin with the first problem.

Mr. Hawtrey has emphasised what is perhaps the main difference between the attitude of a good many economists now and their pre-war attitude, namely, their greater confidence as to the connection between monetary causes, the credit cycle, and unemployment. Mr. Hawtrey himself has been a great pioneer in the exploration of that subject. I myself believe that there is no longer any reason to doubt the connection. Professor Cannan referred to an equation which I published recently in the form $n = pk$, where n is the volume of money, p the level of prices and k the quantity of goods for which it suits the public to have purchasing power in the form of money. The view used to be that k was not subject to rapid fluctuations. It would move up and down over long periods, but over short periods it did not change very much. Therefore if you kept the quantity of currency stable you probably kept prices reasonably stable.

It was argued from this, that, as you would not have in any one year any very big change in the volume of money, therefore you could not have in any one year any big change in prices, so that though gold might move up or down slowly over a long period of years, a fair measure of stability would be secured over short periods. It is true that this was not in fact borne out, because booms and depressions occurred in pre-war days just as much as since; but the tendency was to explain these by particular causes. Many economists now take a different view from that. They think that k, and accordingly the quantity of real purchasing power required, is itself capable of sharp fluctuations, and in fact that it is the leading characteristic of booms and depressions that there should be a variation in the magnitude of k, so that it is this variation which makes those price fluctuations that occur even when there is no marked change in the total volume of money. That being so, attention is naturally transferred to a certain extent from the mere volume of money to this other element. We no longer believe that prices can be kept as steady as they might be simply by securing a constant volume of money, and we hold, rather, that we can only keep prices steady by varying the quantity of money to balance changes in k. If the public, for some one or another cause, decide on the average to keep more purchasing power than before, prices must fall to counterbalance this, and the tendency of prices to fall may produce a situation likely to provoke unemployment. That theory in a clear form is essentially new; and if it is correct it opens up enormous opportunities for far-reaching social reforms.

If we really have the power to control in some measure credit cycles which cause unemployment and other social disturbances experienced in the past, surely it is our duty to follow up this line of thought to the utmost, to make experiments and to see whether by a control of the monetary machine we cannot cure one of the greatest and most dangerous social evils of the economic system. We feel that those who oppose monetary reform ought to make it clear how far they agree with us on that diagnosis. If we have even a half-chance of getting rid by monetary reform of the evils of the credit cycle, I should have thought most people would have agreed that it was worth while, and that it is no good for Professor Cannan to talk about a barbarous age if his object in speaking thus is to keep it barbarous. We certainly live in a barbarous age, but our object should be to emerge from it, and if there is a new weapon forged for that purpose we have no right to overlook it. It is not so much a change in the whole theory of

our view of the credit cycle, as the increased clearness with which we now see the various steps, that is the reason why the minds of some of us have changed since pre-war days.

But there is another reason also for change which has arisen out of events connected with the war. Can we rely on gold to give in future even that amount of stability that it has given in the past? Formerly there was a great deal of gold in circulation in people's pockets. Many countries were rich enough and sufficiently inclined to hoard resources to keep a considerable amount of gold in banks and elsewhere. Any given country might suffer sudden changes in that respect, but it was not likely that in a short period of time there would be a simultaneous change of any magnitude in a number of different countries. As a result of the war, however, there is now extremely little gold in circulation in the world; in most countries none whatever. It is unlikely that gold will return into circulation both because of the expense and because of the change of habits. It is also much more difficult than it used to be for some countries to hold large amounts of gold in banks or to increase their holdings. A great stimulus has been given to all those methods of economising the use of gold, which have been gradually developing as a result of the growth of the credit system. We may even tend now to be up against the ultimate truth that a perfectly conducted gold standard does not require any gold at all, or practically none. Suppose those who manage the credit policies of banks were to acquire sufficient skill in the management of international adjustments, no actual gold would be required at all; and while we are still very far from that position, we are probably already in the position in which the necessary quantity of gold for the maintenance of the existing price-level is far away less than the volume of gold in the world, and the difference between the two is getting larger every day. This redundance of gold pressing upon the world is a phenomenon which some one has to look after, and the problem of preventing that redundance from causing sudden changes in its value is much more acute than it was.

Those of us who are in favour of monetary reform support it, therefore, for two main reasons: first, because we believe that we ought to do all we can in any reasonable way in the direction of the social aims already referred to; secondly, for fear that gold left to itself may prove a much less safe standard of value than in former times. I do not believe that there is sufficient weight on the other side to outweigh those two considerations. There are, of course, two sides to every argument, and it is generally a question

of weighing advantages. It is not that there are no advantages on the other side, but rather that a return to our pre-war system does not offer sufficient advantage to outweigh the factors I have emphasised.

We come next to a further most interesting question. Assuming that we want to reform our currency, what is the right way to do it? There is a certain difference of opinion between Mr. Hawtrey and myself, though I should be perfectly ready to accept his system if it turned out to be practicable. Mr. Hawtrey wants to placate a good deal of feeling that exists in the world by pretending that he keeps gold standard, whereas in fact he establishes a commodity standard. He proposes to erect a façade of gold and then to regulate its value on the same principles as would be adopted by those who aim at the stabilisation of general prices. In monetary affairs there is a great deal to be said in favour of placating prejudice. I do not underrate any of those advantages. And Mr. Hawtrey may be right, that this is the best way to do it. But I should like to point out two important disadvantages in his plan. First of all, there is the question who is going to bear the expense of maintaining the value of gold. On his system there would still be mined, I suppose, about as much gold as is mined now. There is also the problem of existing stocks. At present the United States is bearing the expense of that, both in maintaining stocks and in absorbing new supplies. Mr. Hawtrey's system would mean a very difficult debate on the question how expenses should be shared in the future, and presumably we in this country would have to bear some reasonable proportion of them. We should have to consider, therefore, how many millions a year it was worth wasting in order to maintain this façade. We should also be embarking on a system which would become more and more artificial and indefensible as time went on, and would, therefore, be inevitably unstable in the long run. It would be too absurd to go on indefinitely mining gold out of the earth with great labour, in order that certain countries should bury it again after having met the expenses of mining. Sooner or later the world would see that no sufficient advantages accrued from it, and every one would seek to escape from the burden of spending a certain number of millions a year in maintaining the value of gold.

It is, perhaps, a more fundamental objection against this proposal that it involves very far-reaching agreements between a number of Central Banks. Mr. Hawtrey and I have both had a certain experience of international conferences, but they seem to

have left him more optimistic than they have left me. My feeling is that for some years to come we shall never secure a binding agreement of that kind. Putting all other countries on one side, I think it would not be easy even for the Bank of England and the Federal Reserve Board of the United States to arrive at any binding agreement. It would be very difficult to decide how, when there was a difference of opinion, the matter was to be settled. Moreover, I believe that any such agreement would weaken the hands of the Federal Reserve Board in the United States. There is difficulty enough in any case in pursuing a sound policy, and if the Board was open to the suggestion that they were not acting solely in American interests but at the dictation of the Bank of England, they would be in a much weaker position than they are in now, when no one can possibly accuse them of being governed by any other motive than American interests. I should prefer, therefore, that we should enter into no binding agreement as to the relation between the British standard of value and the American standard of value, but rather that each country separately should aim at stability, and in addition co-operate by the exchange of information and in all other possible ways. If this co-operation were to be successful, then we should also have a policy of a stable dollar exchange, and we and the United States between us could probably manage the rest of the world. It would require no international conference or binding agreement of any kind, and we could gradually improve our methods as experience showed us the way. The only disadvantage it could have might be, that, since we should not accept gold into our mints here unless we wanted it, America herself would probably get tired of the burden of absorbing the world's gold, and that she too would close her mints to gold, with the result that the value of gold itself would fall. Nevertheless it would be better, I think, to face the opposition of the gold-mining interests rather than to embark upon the very costly and difficult path of trying to stabilise the value of gold itself by means of a binding agreement between ourselves and the United States.

In conclusion, let me turn to the matter of immediate policy which Mr. Hawtrey also dealt with. What ought we to do at once? I suggest, as he also suggested, there is room at the moment for a considerable measure of agreement even if we differ for the future. I am afraid there is no room for agreement between us and Sir Charles Addis, if Sir Charles insists on immediate deflation. On that matter the Government, I think, are in

a contradictory position, both this and the previous Governments, when they state that their object is to get back to a gold standard as soon as possible, yet also at times admit in public, as Mr. Baldwin did, that the policy of deflation has been definitely reversed. The Government think it wise to placate Sir Charles Addis by stating that their intention is to return to the gold standard. But fortunately they are not so foolish as to take any active steps in that direction. They have, in fact, no clear policy, but so far as they have one at all they seem to aim at some measure of stability for the present and, as Mr. Hawtrey suggested, have postponed making up their minds any further, until they see what happens to exchange, hoping that the natural course of events will bring sterling to its parity with gold without any degree of deflation. I agree that this expectation may very well be realised, that a further fall of prices in America is not very likely, being indeed wholly unnecessary from any point of view, and that sooner or later the Federal Reserve Board is likely to be overwhelmed by the incoming tides of gold, with the result that a sufficient depreciation of the dollar will take place to bring our own exchange to par—though that this may require a depreciation in the value of the dollar amounting to more than 10 per cent. is also likely, since prices here, in the event of this policy being adopted, would follow dollar prices to a certain extent. Thus it is certainly quite possible that we shall return to our former parity of exchange without resorting to deflation. I should like to point out, however, that the policy of waiting for that to happen and thereafter depending on the Federal Reserve Board to prevent any further depreciation of the dollar seems to assume that the Federal Reserve Board is going to be overwhelmed to precisely that degree which it pleases us should occur, and that when that has happened they are not going to be overwhelmed a scrap further, but are going to retain their price-level at just that figure which happens to suit us at the present time. A nice balance is assumed between skill and want of skill on the part of the Federal Reserve Board. This policy requires that the Federal Reserve Board should lose control of their own situation and should then begin again to exercise skill just at the time that *our* policy requires that they should. I am not confident that this is a coincidence we can rely upon.

At any rate, let us suppose that this is the position, that the Government is disinclined to take any further steps towards deflation, and also that the underlying facts of the situation may quite likely bring sterling back to par. What is our right course?

Well, we have a golden opportunity for making on an adequate scale precisely the experiment that I want. Why should we not aim for the present at keeping our own price-level steady and, in order to please other parties, postpone any final decision until our exchange has reached parity. The arguments of all the speakers seem to me really to imply that at one stage or another the price-level *is* under our control. No one wants to diminish the value of our money. If, then, we do not want to increase the value of our money, which would mean deflation, why should we not spend the next few years in keeping prices steady, and seeing if we can do it, meanwhile learning, perhaps, how to do it without exciting prejudice? If after having done this successfully for a few years we reached our old parity, I myself would have a great deal of confidence that the success of the method would justify its continuance, that after having kept prices steady without the use of gold for some appreciable time, we should be rather loth to abandon it and to follow a tide of involuntary inflation by linking ourselves once more to gold, which by hypothesis would have just been depreciating substantially. I believe that currency reformers will experience much less prejudice and hostility when it is a question of letting sterling go above its old gold value rather than of keeping sterling below it. I believe many people in the City of London have much more feeling about the return to parity than they have about sticking there, when it is once attained and not going above it. For instance, Sweden, it has been reported, in the last week or two has decided upon a new policy of convertibility by which the krone will not be allowed to fall below the old gold parity, but with no provision, however, to prevent its rising above it. This is a return to the gold standard in its most harmless form. To undertake that the value of the currency shall not fall below its old parity, whilst allowing the value of the currency to rise above it, is quite possibly the most practicable solution. It would be sound policy in the United States at this moment to maintain convertibility, but at the same time to close the mints to further foreign gold. A plan of maintaining convertibility into gold at a fixed ratio, but of not accepting further gold into the mints when gold is redundant and depreciating, may prove the right compromise between old and new wisdom. If we return to the old gold parity, I would prefer that compromise to the plan which Mr. Hawtrey suggests. I do not suggest that his would not be an improvement, if it came into operation, on what we have had in the past. But the practical difficulties operating

against it are far greater than those operating against the alternatives which I myself prefer.

Lord Milner

At this late hour you will be gratified to hear that I do not propose, myself, to enter at any length into the discussion of the very interesting subject on which previous speakers have dilated; but I think you will all feel that we have had a most interesting debate, and you will all wish that I should express on your behalf our appreciation of the skill and lucidity with which the several speakers have put their different points of view before us. They were all very polite to one another, and a superficial listener might have thought that there was a great deal of underlying agreement in their points of view. I am not a sufficient authority, myself, to say whether that is so or not; but personally I shall carry away from this discussion the impression that there is, after all, neither that unanimity which might have been presumed from the politeness referred to nor any great likelihood of that strong and determined action in a particular direction which Sir Charles Addis seemed to prognosticate. It may be because I am inexpert as an economist and belong, if I belong to anything, to the much-despised class of politicians, that I feel a certain sympathy with that thoroughly inconsistent attitude on the part of the Government to which Mr. Keynes humorously alluded. Fortunately, I do not belong to the Government any longer, but I am sure that if I did I should be prepared to burn any amount of incense on the altar to the gold standard, or at any altar, provided I was not asked to take any step which might tend, at a time like the present, to increase, either by much or by little, or run any risk of increasing, the depression of trade, the slackness of production, and the great mass of unemployment, and therefore I am not sure that, as I say, a perhaps somewhat cowardly and certainly not very logical attitude is not more or less defensible after all.

Now, I am not going to make a speech. I will only ask you, therefore, to join with me in giving a hearty vote of thanks to the speakers, and I should like to express the feeling that those who have listened to the discussion, as I have tried to, to the best of my ability, very carefully, will find a great deal to think about in what they have heard to-night which will well repay serious reflection.

THE MONETARY POLICY OF THE FUTURE

ALTHOUGH it would seem eminently desirable after three years of intense depression, when industrial reserves are running low, bankruptcies are multiplying, and the business atmosphere is everywhere unsettled, that all possible stimulus and encouragement should be given to industry, and that therefore monetary stringency should at present be avoided, there will come a time in the process of recovery when the continuance of easy credit would lead to disastrous inflation. A stage will be reached when a clearly defined policy will be necessary in order to avoid such inflation and at the same time ensure the utilisation of bank credit to the best advantage of society. The purpose of the following notes is to look forward to this period of comparatively high industrial activity and discuss certain lines along which credit policy might then be moulded.

If it may be assumed, as seems reasonable, that the whole of the economic world is agreed upon the desirability of securing some degree of stability in the general level of prices,[1] the problem then becomes essentially that of determining what degree of stability might be considered a practical aim, and how such an aim may be translated into a clear index for the use of the Bank Court in fixing the bank rate. Two alternative criteria suggest themselves: the one defined by Professor Sprague of Harvard as discount policy " would not be concerned with permanent changes in prices. . . . It would aim merely at lessening price fluctuations within particular business cycles, checking somewhat the upward movement and thereby lessening the subsequent decline."[2] Under such a system the long-period " normal " would thus be left to hazard; but, at all times, the actual current trend would be prevented from attaining any degree of rapidity. This index will be termed, in what follows, " the floating normal."

[1] If the reader is inclined to disagree with this statement, might I be allowed to fall back for support on a collection of opinions which I have recently made on behalf of the International Association on Unemployment, and published in the form of a report on " Control of Credit as a Remedy for Unemployment." The present article is intended largely as a development of that report, in which I was unable to express fully my personal views.

[2] *The American Economic Review*, March 1921, p. 24.

The alternative index is capable of clearer definition. It would entail the adoption of an unchanging long-period "normal" with the restriction of fluctuations within certain limits, say, 3 per cent., either way, of that normal. In practice, it would mean that whenever the price level rose more than 3 per cent. above normal, the bank rate would be raised [1] to bring it within the appointed limits. The reverse process would take place if a fall of 3 per cent. below normal were reported. This criterion will be termed below: "the rigid normal."

One essential difference between these two indexes should be noted here. The "floating normal" would permit a long-sustained movement of the price level, either rising or falling, provided it were gradual. In other words, it would allow the continuance of either prosperity or slight depression over long periods of time. On the other hand, the "rigid normal" would break up such a swell and subsidence into smaller wavelets; for it would change the trend of prices every time divergence from the normal became pronounced.

Such an inflexible index as the one described above almost inevitably meets with immediate disfavour through the impression it creates of imposing undesirable restraint. However, to accuse an index of rigidity is, it seems, as reasonable as to lay the same charge against a protective rail on a precipice. The accusation is well founded only if the means for securing that rigidity are detrimental, or if, once secured, the results themselves do not prove satisfactory. It would be well, therefore, to start from this basis of reasoning and endeavour to determine, first, the benefits which may be gained from maximum stability and, secondly, the means for giving it effect.

The Gains and Losses accruing from Stability

The purpose of the following section is, then, whilst touching on certain aspects of stabilisation, to determine which of the indexes defined above might yield the maximum of benefit without introducing corresponding inconveniences.

The primary object of price stabilisation is to avoid fluctuations in industry which lead at one stage to speculation and the waste incident to easy gains, at another to bankruptcy, loss, anxiety, unemployment. Which of the two indexes above may

[1] This would be accompanied, if necessary, by the sale of securities or by the application of other devices whereby the Bank of England secures effective control over the market rate. These measures would be continued until they had the required influence over the movement of prices.

be expected to secure this purpose more fully? In order to solve such a question, it would seem necessary to examine some of the more popular explanations of trade cycles and in each case to compare the effect of the two indexes in counteracting the cyclical factors involved.

The hub of many popular theories is the state of confidence in business. Optimism and pessimism tend to generalise themselves and become cumulative. For industries and firms are interdependent to a very high degree, each unit being a customer or vendor to scores of others. Captains of enterprise are in frequent personal touch, read the same trade literature, watch the same signs. Thus, the state of confidence in business tends to be a communal force affecting all alike. Any factor influencing it in any way has a powerful bearing on the development of trade.

Price movements constitute such a factor, since they are accepted by a large majority as a sign of market conditions, a downward trend dictating caution, an upward trend restoring hope. The mere restraint of the rapidity of movement does comparatively little, however, to destroy this tendency to fluctuating confidence. On the other hand, the existence of a rigid normal price level is absolute guarantee that, whatever the current trend may be, it is no cause for either speculative extension or undue pessimism. Future prospects in the matter of costs and prices are roughly known for as many years ahead as the "normal" is guaranteed. Hence the stablising influence of the rigid normal system would appear greater than that of the floating normal in counteracting the effect of fluctuating business confidence.

Closely associated with the above theory is that of over-capitalisation. In the early stages of revival, after a serious depression, there arises a sudden demand for capital expenditure; the period is particularly favourable to new expansion because costs and interest rates are low, reserves of machinery and plant have been used up during the depression and require renewal, prospects are improving, and future costs seem likely to exceed the present. The expansion continues until nearly the end of the boom, when costs are rising and the product of the new capital outlay is coming on the market in sufficient quantities to prevent prices from soaring further. The tide turns and goods glut the market, causing a standstill in the productive process.[1]

To start at the beginning of this argument again, it will

[1] There are numberless varieties of theories containing elements similar to this, but diverging as to points of emphasis.

be seen that no general burst of capital expansion is possible unless one postulates a long period of depression preceding it and the prospect of a correspondingly active future. Now these conditions are possible with a system which takes no account of the long period trend of prices; but this is certainly not the case with the rigid system, because the latter would yield small and frequent fluctuations rather than long-continued movements.

A further exaggerating feature on which emphasis is frequently laid in explanations of cyclical phenomena, is the tendency to accumulation of stocks during a period of rising prices, followed by a rapid liquidation in the slump. Merchants and retailers, anxious at all times to satisfy their customers' every whim through the range and variety of their wares, willingly take advantage of a period of rising prices to attain their end, since the appreciation of the monetary value of the stocks during such a period compensates the interest payable on the capital outlay. The process is reversed when prices fall. The greater the stability of prices at any period, or rather the greater the certainty of their remaining stable, the less is the incentive to increase or reduce stocks.

Past observations have shown that the more the average level of prices fluctuates, the greater becomes the spread between individual commodity prices. This price dispersion may reasonably be taken to indicate that certain industries boom and expand more rapidly than others when trade in general booms. Hence, theorists who attribute cyclical depressions to the over-extension of certain individual industries would probably agree that the nearer it is possible to approach absolute stability of the average level of prices, the less probable is the undue expansion of any individual unit in the group; the stabilisation of industry in general would materially assist the stability of the separate productive units.

Finally, the monetary theorists depend essentially for their solution on price stability. Accepting for the most part that the factors enumerated above combine their cumulative forces towards activity or depression, they show that the industrial machine, so driven, rocks to and fro, controlled alone by monetary restraints. The more infrequent the application of the check the more extensive and dangerous the oscillation. Again, the rigid normal with its minor fluctuations would seem to yield the most efficient check to this disequilibrium.

Apart from meteorological explanations, it would seem doubtful whether there is one theory yet expounded which fails to find some measure of solution in the restraint of fluctuating prices;

and, in almost every case, the rigid normal would show itself a much superior stabilising force than the floating normal with the mere restraint of rapid fluctuation.

But how far is maximum stability desirable? The term itself, "stabilisation," is unfortunate in that it seemingly infers stagnation, if not compression. In point of fact it means expansion, stable motion, as it were. An athlete's muscular development is greatest when he avoids excessive exercise or diet with the consequent relapses; in his case stability of growth will yield the greatest average progress. So with industry; stabilisation of the process of development will give the greatest ultimate expansion.

Essentially the stabilisation of prices implies the scientific adjustment of purchasing power to conform exactly with the increase of production. It thus facilitates that proportion of development which may be considered healthy. What it does purport to restrain is that part of enterprise which can only thrive when rising prices yield an excess profit—a kind of growth which is not only uneconomic in itself, but leads to ultimate reaction and collapse. Again, its purpose is to hinder the storing up of stocks through speculative purchase, a condition which actually reduces consumption whilst it operates and clogs the industrial process when depression comes. Finally, it eliminates the alternation of expanding and contracting credit, the one a stimulus to every kind of enterprise both good and bad, the other a form of almost physical contraction of consumption and restraint of trade activity.

If, therefore, the sobriety of the future progress is likely to yield more constant gains than the somewhat inebriate oscillations of the past, the measure of this success will be great in proportion as stability of motion is secured. The conclusion seems reasonably clear then that, by virtue of its superior stabilising capacity, the rigid index described above would give more satisfactory results than the "floating normal" index. Are there any other reasons for its adoption?

The Table below, giving the number of industrial disputes per annum from 1900 to 1923, shows that there is a strong tendency to increase in the number of disputes either during rapid fluctuations of the price level (1907, 1920) or towards the end of a long period rise in the cost of living (1913, 1918-1920). Let these statistics be translated with a little imagination into discontent, impoverishment and despair, and one is left with a very cogent argument for securing the maximum of stability.

Year.	Number of disputes commencing during year.[1]		Wholesale prices.[2]	
1900	648		75	
1901	642	− 6	70	− 5
1902	442	− 200	69	− 1
1903	387	− 55	69	
1904	354	− 33	70	+ 1
1905	358	+ 4	72	+ 2
1906	486	+ 128	77	+ 5
1907	601	+ 115	80	+ 3
1908	382	− 219	73	− 7
1909	422	+ 40	74	+ 1
1910	521	+ 99	78	+ 4
1911	872	+ 351	80	+ 2
1912	834	− 38	85	+ 5
1913	1,459	+ 625	85	
1914	972	− 487	85	
1915	672	− 300	108	+ 23
1916	532	− 140	136	+ 28
1917	730	+ 198	175	+ 39
1918	1,165	+ 435	192	+ 17
1919	1,352	+ 187	206	+ 14
1920	1,607	+ 255	251	+ 45
1921	763	− 844	155	− 96
1922	576	− 187	131	− 24
1923	611	+ 35	130	− 1

[1] *The Labour Gazette.* Sauerbeck.

Other writers have stressed with force and conviction the need for avoiding fluctuations in price because their incidence is uneven and leads to injustice between debtor and creditor, stock-holder and debenture-holder, producer and consumer, tax-payer and State creditor. It has been estimated that the transference of ownership of real wealth in the United States as a result of the changing value of money has exceeded the value of confiscated property in revolutionary Russia.

International Aspects

Few will dissent from the statement that some degree of international collaboration will be necessary before stability both of internal prices and of foreign exchange rates can be secured. Since it will be essential, in order to obtain stability of the exchange, that all countries should follow the same price policy, such an international policy, to be effectively adopted, should be capable of clear definition. The " floating normal " could never form a basis for the stabilisation of exchange rates unless all countries were prepared to follow blindly the price policy of a single chosen country, regardless of the suitability of that policy for their own industry.

The "rigid normal," on the other hand, is capable of clear and absolute definition. If it were adopted by Great Britain, any other country endeavouring to stabilise its currency in relation to sterling would know precisely to what price policy it was committing itself. The probability of international action proceeding along such lines would be comparatively high. If it were successful, not only would exchange stability be achieved, but also price stability over the whole area affected. Great Britain has for so many years taken the lead in matters of currency and banking that it seems unquestionable that were it to adopt a scientific index for the control of its money, the whole world, including the United States, would be drawn towards the adoption of similar policy and method.

What more scientific index for the regulation of money could be found than the value of that money in terms of the general commodities it buys? When a purchaser asks for a gallon, an ounce, a yard, he receives the same measure day by day and year by year. Is it not reasonable that the most important measure of all, the one which is used in virtually every transaction, should also have at least some semblance of fixity?

Means for securing Stability

If, therefore, from the purely logical standpoint, and from the point of view of assisting to eradicate certain of the worst evils of the present economic system—unemployment, business risk, social friction, injustice in the acquisition and transference of property, and crime [1]—the "rigid normal" system yields specific advantages over the looser system, it would be well to consider the measures available for applying the former system, and the possible repercussions of these measures on trade organisation itself.

The regulation of the general level of prices is only possible through the monetary factor, that is, by controlling the volume of loans issued to business men. The most universally effective regulator of such issue is the price or "fee" payable for the use of the money borrowed, in other words, the market rate of discount. The problem of price control is therefore essentially that of influencing the market rate of discount. The movement of this rate may be influenced by the Bank of England, either through the bank rate, the rate at which it will lend to Joint Stock Banks by discounting their bills, or by affecting the cash reserves

[1] The Prison Commissioners regard the serious increase of crime in 1921 to 1922 as principally a by-product of the industrial depression.

of Joint Stock Banks at the Bank of England. The latter method is the least obtrusive and disturbing, since it can be effected by the purchase or sale of securities or other assets held by the Bank of England. Hence in any policy of stabilisation it would be used as extensively as possible in order to avoid frequent fluctuations in the bank rate itself, the latter being applied only when the other method failed to restrain the price level within its appointed limits.

How frequently changes in the bank rate would be necessary to restrain prices within the 6 per cent. limit of fluctuation suggested above seems impossible to estimate. If it were found after trial that changes were undesirably frequent, the limits might be widened. But there are at least two important factors which would facilitate control under the rigid normal system.

In the first place, since instability is cumulative, so, in a sense, is stability itself. And whereas it may seem difficult to restrain a wild inflation or the consequent depression, the possibility of nipping in the bud a gentle two or three per cent. divergence from a recognised normal would seem much greater, particularly when it is considered that the instrument of control is the same in the one case as the other, and that its influence, though light, is at all times universal.

Secondly, the psychological effect of a definite index would be strong. Whatever industry is led to anticipate is almost always realised. The expectancy of better times ahead leads to the very development of enterprise upon which the future prosperity depends. On the other hand, when confidence is shaken, depression deepens. Stability, the midway state, also tends to strengthen by anticipation.

In this connection it will be seen that merchants, dealers and brokers would be very directly influenced by a prospective movement in the cost of borrowing. When they are aware that the rise of prices beyond a certain point will cause an automatic increase in the rate of discount, they will prepare for such a movement by reducing somewhat their stocks and orders, a factor which will immediately reduce the tendency to rising prices. The clear definition of the index would thus greatly assist its application.

One important objection to the rigid normal principle is that violent fluctuations in the price of a small group of commodities, due to wars, strikes or other general upheaval, might throw the common average out by several points, and that, were the policy of stabilisation continued, all industries except the ones which

benefited by the new demand would have their price levels depressed to compensate the extravagant local rise. It would seem that this difficulty ought to be accounted for in determining the principles which should guide the detailed application of the index. The controlling authority would presumably have discretionary powers to suspend temporarily the operation of this index in cases of real emergency and await a time of "normalcy" before attempting to recover the initial price position. In a certain sense, one purpose of clearly defining the index would be to strengthen the hand of the Bank Court against possible, though improbable, industrial and political pressure. The idea that the Court is not competent to direct its policy with discretion and ability, according to any index which it may consider sound, is, of course, absurd.

The principal conclusion indicated in the foregoing notes is that social interests would best be served by the maximum of price stability consistent with some degree of stability of the bank rate itself. The compromise would be effected by rendering more, or less, elastic the limits of permissible divergence of the price level from the fixed normal, these limits being initially experimental. The solution would be weighted heavily in favour of stability of price, since fluctuations in the volume of credit itself cause much more universal dislocation than mere changes in the price of that credit.

The resumption of the gold standard would have an important bearing for this or any other scheme of price control, and might be examined in conclusion.

The Gold Standard in Relation to Price Stability

One point perhaps neglected in the discussion of the problem of the post-war gold standard is that the latter will bear little resemblance to the pre-war system. Owing to a considerable change in legal reserve requirements in the United States, to the economy of gold in other countries through the substitution of paper circulation, and to the inability of certain States to resume the standard, there will be a large world-surplus of gold which may act as a basis for inflation. In fact, if the banks revert to the use of the reserve situation as their principal criterion, inflation will unavoidably follow. Owing to this floating surplus of gold, the post-war gold standard must for many years be a "managed currency," as is that of the United States at the present time. Moreover, it will have to be managed in precisely the same way as a paper currency.

A serious risk in the resumption of the gold standard would be that the controlling authorities in different countries might fail to realise this important point—the need for managing the currency according to post-war principles—and might complacently revert to their pre-war habits. As already indicated, the use of the reserve situation as principal criterion would lead immediately to disastrous inflation. And were the majority of countries to follow such a policy it would be exceedingly difficult for any single country to stand against it. Any nation endeavouring to restrain the rise of prices within its own borders in the face of a world boom would immediately be flooded with gold from other centres. It would either have to be prepared to bear the expense of this burden of gold in the face of criticism and the demand for easy credit, or it would have to join the general inflationary movement.

The process of resumption itself would not be without its risks. There are four conditions which, jointly or severally, would permit Great Britain to restore its gold basis: devaluation of sterling; the opposite, valorisation of the dollar; a fall in British prices; a rise in American prices. If the first three may be ruled out as improbable, we are left with the most probable, though still undesirable—a rise of prices in America. Such an occurrence would in present circumstances almost inevitably lead to speculation, over-extension—everything, in fact, that goes with an inflationist boom—in the United States. It would almost inevitably be followed by reaction and falling prices. Now if, at the peak of such a boom, Great Britain were to resume the gold standard, thereby tying itself to the American price level, it would share the American depression through having its own price level forced down in sympathy. The United States being the more industrially powerful, and possessing an unlimited power to drain away the gold basis of other countries, would drag Great Britain with it.

Thus the sacred monetary link of gold appears to be in danger of becoming nothing but a gilded shackle. It would unquestionably mean a sacrifice of freedom. The only way in which the risks of such a step could successfully be met would be by complete collaboration on an international scale. Agreements would have to be made as to the distribution of the world's supply of monetary gold, with a view to preventing inconsequent dabbling in the gold market by newly resuming States, or the equally dangerous abandonment of the standard by others. Even that would not avoid the necessity of "managing" the currency

internally and disregarding the reserve ratio as criterion for several years to come.

For all these risks, precautions, and possible expenses there appears to be no compensation. The existing system in Great Britain is inexpensive, efficiently controlled and, most important of all, gives absolute freedom in the pursuit of an independent price policy.

It may be said, perhaps, that the return to the gold standard will enable London to recover its prestige in international banking and lead to still more flourishing prosperity in the profession. But since banking has always been, in the true sense of the word, a profession, in that it has considered its first duty to be the service of the industrial community at large, there seems little likelihood of purely sectional interests interfering with whatever may be considered the wider interests of society. Moreover, the progressive attitude would seem to be the only salutary course in present times. Great Britain has always set the fashion in banking, and there is every probability of its continuing the rôle, not, it seems, by preserving an obsolescent institution, but rather by sensing and seizing on the spirit of the age. Throughout Europe a violent revulsion has arisen against the chaos of fluctuating currencies. "Stabilise prices" is the text of every economist of note—Gide, Cassel, Bruins, Bonn, Wicksel, Stuart, Ansiaux, Mises. The Genoa Conference states: "The essential requisite for the economic reconstruction of Europe is the achievement by every country of stability in the value of its currency."

It would seem unquestionable that were our country to give the lead by defining clearly the principles on which its currency is in future to be guided, the whole of Europe would endeavour to fall in line. The machinery for this complete accord would be the simplest imaginable. Every country which undertook to stabilise its exchange with sterling would thereby bind itself to the same price policy, and were that policy well conceived, not only would our own country benefit thereby, but every other land which looked to us for guidance.

J. R. Bellerby

BIRTHS AND POPULATION IN GREAT BRITAIN

THE fall in the birth-rate of Great Britain since 1876 and the decrease in the actual number of births per annum since 1903 has had, and must continue to have, far-reaching results on the age-constitution of the population. It is interesting to inquire what birth-rate is necessary to prevent a decrease of the population, and what would be the ultimate age-distribution in a population in which the number of births was constant and the death-rates stationary. To simplify the investigation we will assume that there is no emigration or immigration.

As the starting-point we will take the age-distribution as shown by the Census of 1921, the death-rates as those in England and Wales in 1910–12,[1] and the number of births as the average of the three years 1921–23 in Great Britain. Owing to the lack of a Census in Ireland in 1921 the inquiry is confined to Great Britain.

It is obvious that if the death-rates are unchanged a decrease in the number of births must ultimately result in a decreasing population, but the interaction and balance of varying birth- and death-rates are by no means easy to perceive *a priori*, though they are not difficult to compute. The age-distribution of 1921 was the result of a number of variable factors. Persons born before 1876 were the survivors of the period before either the birth- or death-rate diminished. Persons aged between 18 and 45 at the Census were originally as numerous year by year as their predecessors, and the death-rate had fallen throughout their lifetime.[2] There were therefore markedly more women at these ages than at previous Censuses, but the men were decimated by the war. All classes over 18 years were depleted by emigration, but the men suffered a greater loss than the women from this cause. The age classes born after 1903 were year by year less numerous, and the births in the war years were abnormally low; the diminution in births was compensated as regards about one-third by reduced infant mortality. The composition of the population in 1921 was therefore abnormal, and its abnormalities result in a small death-rate, for the population under 5 years and

[1] Life Table No. 8 for England and Wales.

[2] See Table of Births and Deaths below.

over 65 (which contain the age groups whose mortality is high) were small relatively to the population between 5 and 65 (where the mortality is low). Hence we have the phenomenon of a considerable natural increase combined with a diminishing number of births.

Whatever the number of births may be in subsequent years, we already know the starting position of the classes who will be aged 8 or more in 1931, 18 or more in 1941 and so on. No further reduction of infant mortality can affect these groups, and since the death-rate between the ages 5 and 45 never exceeds 15 per 1000 and 11 per 1000 for males and females respectively, there is little room for reduction for these classes except for some saving of deaths from phthisis. In fact the numbers of persons of working ages in 1931 and 1941 could be known with fair

THE POPULATION OF GREAT BRITAIN.

On the hypotheses that the annual number of births is the same as in 1921–23, that death-rates are as in 1910–12, and that there is no migration.

Thousands.

Ages.	Males.						
	1921.	1931.	1941.	1951.	1971.	1991.	2011.
0–15	6,011	5,666	5,788	5,788	5,788	5,788	5,788
15–45	9,358	10,241	10,690	10,726	10,564	10,564	10,564
45–65	3,949	4,463	4,538	4,954	5,381	5,389	5,389
65–	1,103	1,386	1,737	1,862	2,110	2,191	2,223
Total	**20,421**	**21,756**	**22,753**	**23,330**	**23,843**	**23,932**	**23,964**
15–65	*13,307*	*14,704*	*15,228*	*15,680*	*15,945*	*15,953*	*15,953*
	Females.						
0–15	5,929	5,585	5,713	5,713	5,713	5,713	5,713
15–45	10,657	11,125	10,974	10,683	10,515	10,515	10,515
45–65	4,279	5,125	5,595	5,949	5,797	5,676	5,676
65–	1,480	1,790	2,247	2,602	2,991	2,860	2,836
Total	**22,345**	**23,625**	**24,529**	**24,947**	**25,016**	**24,764**	**24,740**
15–65	*14,936*	*16,250*	*16,569*	*16,632*	*16,312*	*16,191*	*16,191*
20–45	*8,643*	*9,182*	*9,138*	*8,847*	*8,679*	*8,679*	*8,679*
Total M. & F.	**42,766**	**45,381**	**47,282**	**48,277**	**48,859**	**48,696**	**48,704**
	Percentages.						
0–15 M. & F.	28	25	24½	24	23½	23½	23½
15–65 M.	31	32	32	32½	32½	32¾	32¾
15–65 F.	35	36	35	34½	33½	33¼	33¼
65– M. & F.	6	7	8½	9	10½	10½	10½

accuracy if the emigration rate could be forecasted. So far as problems of employment are concerned, the figures in the table for 1931 and 1941 give maxima, from which emigrants (already numerous in 1921–23) are to be subtracted. Owing to the reduction in the number of births, the number of boys and girls coming year by year into the labour market has already fallen and will fall further. There will be a special diminution about 1932, when the children born in 1917 and 1918 are of working age, and from 1932 to 1938 the number of recruits will be trifling.[1] So far there is little doubt in a forecast of the maximum population, and we can also anticipate decade by decade a reduction in the age groups reached by the children born in the period 1903–1923. In the Table, for example, this is shown in the reduction in the numbers of women aged 20 to 45 in 1941 and 1951.

The lower part of the Table shows the rate of progress on our hypothesis towards the distribution which would result from a stationary number of births. The proportion of children under 15 falls rapidly to 1931 and then slowly to 1971, at which date the final distribution so far as broad categories are concerned is approximately reached. The excess of women over men, due to the war losses and to emigration, is gradually reduced. The main part of the Table shows that whereas women of 15 to 65 were 12 per cent. more numerous than men in the same age group in 1921, in a stationary population the excess would be only $1\frac{1}{2}$ per cent. The total of men and women aged 15 to 65 is from 66 to 68 per cent. of the population throughout. The evident movement is the replacement of the young by the old. The active members of the population will be supporting the survivors of a former generation in place of a rising generation.

The growth of the total population of Great Britain was 10 per cent. from 1901 to 1911, and 4·7 per cent. from 1911 to 1921. If there was no emigration the growth would be 6 per cent. from 1921 to 1931, about 4 per cent. from 1931 to 1941, a little over 2 per cent. to 1951, and thereafter there would be a very slight increase to a maximum *circa* 1971, followed by a trifling fall—always, of course, on the hypothesis of constancy in number of births and unchanged death-rates.

The preceding estimates and conclusions depend to some extent on what is the number of births taken as constant. The following statements are independent of this number, but still

[1] This point is examined more closely in a forthcoming book by the authors of *The Third Winter of Unemployment*, where more detailed tables are given for 1931 and 1941.

depend on the continuation of the 1910–12 death-rates. The stationary population is 53·4 times the number of births. The death-rate, which equals the birth-rate, is 18·7 per 1000. If we take, as we reasonably may, women between 20 and 45 years as the number of potential mothers, a number which is much more important in relation to births than any other, we find the birth-rate per 1000 of them to be 106, which is equivalent to about 2·6 births per woman in her lifetime, and of course to a larger number if the sterile are excluded. This rate is necessary to continue the stationary population, and with a lower rate the population will diminish.

Returning now to the actual figures, the birth-rate per 1000 women aged 20 to 45 was in 1911, 122, in 1921, 115, in 1922 about 105, in 1923 only about 101. In 1931, when the number of women of these ages will be greater (since they were born when the number of births was still high), a rate of only 99 would be required, and in 1941 only 100, but by this date the number of women at the earlier and more fertile ages would already be at the minimum. We may therefore expect some increase in the number of births in the next few years, unless whatever causes are responsible for the low rates of 1922 and 1923 continue to be effective.

In this connection the experience of France is relevant and interesting.

France. Distribution in 1911.				Stationary Population as in the year 2011 in the Table above.		
Ages.	Males.	Females.	Persons.	Males.	Females.	Persons.
0–15	13·0	12·8	25·8	11·9	11·7	23·6
15–65	32·4	33·5	65·9	32·8	33·2	66·0
65–	3·7	4·6	8·3	4·6	5·8	10·4
Total	49·1	50·9	100	49·3	50·7	100
20–45	—	*18·7*	—	—	*17·8*	—
Birth-rate, 1909–11:						
Per 1000 population			19·5	18·7	—	—
,, women 20–45			104	106	—	—
Death-rate 1909–11			19·0	18·7	—	—
Population, 1891	38,133,000				—	
1901	38,451,000				—	
1911	39,192,000				—	

With a very slow increase in population France had reached a nearly stationary condition very similar to that obtained in our

hypotheses, but with a rather larger proportion of children and a corresponding smaller proportion of old people.

An important conclusion from the statistics relating to great Britain is that at the birth-rate (per potential mothers) of the years 1921–23 the population will ultimately diminish if there is any emigration, unless the death-rates fall further. As a fact emigration on a considerable scale took place in the past three years, and with the present rates of births, deaths and emigration, the population of Great Britain would increase to 45 or 46 millions about 1941 and then diminish.

Great Britain

	Births.		Deaths.	
Date, average.	Number, 000's.	Rate per 1000 of population.	Number, 000's.	Rate per 1000 of population.
1876–80	1012	35·3	595	20·7
1881–85	1019	33·5	591	19·4
1886–90	1009	31·5	608	19·0
1891–95	1034	30·5	635	18·8
1896–1900	1052	29·3	636	17·7
1901–05	1071	28·2	612	16·1
1906–10	1039	26·1	591	14·9
Years.				
1912	995	24·1	559	13·6
1913	1002	24·0	578	13·9
1914	1003	23·9	590	14·0
1915	929	—	—	—
1916	895	—	—	—
1917	767	—	—	—
1918	761	—	—	—
1919	799	19·2	579	13·9
1920	1095	25·8	534	12·6
1921	971	22·7	525	12·3
1922	895	20·8	560	13·0
1923	870	20·1	508	11·7

A. L. BOWLEY

THE TRUE BASIS OF PROTECTION FOR INDIA

MUCH has been and is being written in these days about the soundness of free trade principles, about the advisability of an Imperial Preference Scheme, and also about Protective Tariffs for India. The Fiscal Commission has committed the country to a revision of tariffs without quite clearly realising the nature of the issues at stake, or appreciating the trend of the policy of industrialism which the Western nations are following to-day and the Commission desire to secure for India by protective tariffs. We have a Tariff Board listening on the one hand to the clamorous demands of every Indian industry to get protection by high tariffs; on the other hand to the wails and the warnings of commercial interests that show consternation at the sacrifice of Indian consumers' welfare and the dislocation of trade. We have also been listening to the immense possibilities of an Imperial Preference Scheme linking together the dependencies and the self-governing colonies into a solid Empire, the pattern of the kingdom for whose advent men have hungered and thirsted for generations.

I have no desire on this occasion to enter the lists in a spirit of combativeness. I only plead for a little clearness of thinking on these questions. Let us realise what industrialism to-day means for Europe.

Industrialism in the West has meant the cessation of self-sufficiency for the countries with highly developed industries; this is not unwelcome in itself if only the economic resources of the world were co-ordinated on a basis of mutual confidence and friendship between the nations. But to-day the economic affairs of the world are in a muddle. The leading countries of Europe have become bankrupt; the fluctuations in the exchanges make all international commerce difficult; the forces that were behind the war of 1914 were economic forces; it was a war fought by capitalist empires for the furtherance of capitalistic designs; nobody now thinks of parading the old cant about righteousness and justice; and these economic forces to-day threaten the peace of Europe even more seriously than they did in 1914. The necessity for exploiting the economic resources of the world—at any rate of the backward and defenceless tracts

—is becoming even more stringent. Serious thought in Great Britain has turned restlessly in various directions for the solution of the problem of an overgrown population dependent for its existence upon the export of manufactured goods which an impoverished world cannot buy. There is a cry of "back to the land," growing more wheat, and fostering agriculture; there are solemn preachings about the exercise of prudential restraint; there is the growing fear that a diminution in the supply of raw materials synchronising with growing unemployment might precipitate a crisis.

One might obtain an insight into how the psychology of Western industrialism to-day rests on the economic exploitation of backward countries by recalling to mind a more or less parallel incident in the economic history of England itself. The enclosure of common lands in England was proved to be good because it made the lower classes work and so improved their character. "Moral effects of an injurious type accrue to the cottager," it was said, "by a reliance on the imaginary benefits of stocking in common." The possession of a cow or two with a few geese exalted the peasant above his brothers in the same rank; in sauntering after his cattle he acquired a habit of indolence. Sometimes half and even whole days were lost. Labour became disgusting; and at length the sale of a half-fed calf or hog furnished the means of adding intemperance to idleness. It was necessary to save men from such consequences by enclosure of common lands; and so in our times, when nobody takes the argument seriously in the sphere of English economic history, the same type of reasoning is reproduced on a large scale for exploitation of the resources of the colonies and dependencies. Mr. Chamberlain in 1903 in a speech in the House of Commons observed: "The progress of the native in civilisation will not be secured till he has been convinced of the necessity of labour," and a useful method of convincing natives is first to take from them the land from which they derived their livelihood, to confine them to "reserves" within which they can obtain only a meagre livelihood for a few, and to tax them for an amount which can be paid only if they work for wages. Lord Milner in 1920 confirmed this zealous anxiety of the Englishman to look after the Africans. "Left alone the majority of adult men in the native reserves live a life of idleness, drunkenness and vice." "Encouraged and taught to work the native sees the advantage of earning money, and this is for the good of the Empire and for the good of the native whom we protect."

This is the industrialism that the West offers to us. Shall we blindly adopt it and follow in the footsteps of the Western countries, demanding protection to enable us to enter the world market as one more competitor in the mad rush for profit-making, dumping our surplus goods on the foreigner and claiming not raw materials—have we not more than enough of these?—but gold in exchange which we shall never get? The Fiscal Commission works under that idea. The dissenting minute says in so many express words: "We would place before the country the goal to be aimed at, namely, that India should attain a position of one of the foremost industrial nations in the world, that instead of being a large importer of manufactured goods and exporter mainly of raw materials, she should so develop her industries as to enable her within a reasonable period of time, in addition to supplying her own needs, to export her surplus manufactured goods." We do not desire to have protection for an industrialism of the Western type, militant, aggressive, that rests on a policy of exploitation, as Britain has done in India, as Belgium did in the Congo and Japan in Korea.

The only true and sound basis on which India can demand protection is the claim for economic self-sufficiency. There was a time when this country had a population fairly equitably distributed between agriculture and industries, between villages and the towns, able to provide all its wants from within itself. In this land of political vicissitudes the country has hitherto been subjected to many a change in her rulers; the Hindu was replaced by the Pathan, and the Pathan by the Moghul, and the latter in turn by the white trader from across the seas. But all throughout the ages her social and economic institutions retained their vitality, creating conditions of simple plenty and a scheme of stable social relations in which the different parts of the social organism were linked together by ties of co-operation enforced under the highest religious sanctions. These conditions alone made possible the creations of art and beauty that found expression not only in the temple architecture, but also in the commodities of daily use for the mass of the population. It is these stable institutions, resting on social customs and traditions inherited from a dim antiquity, that have been thrown into the melting-pot by the introduction of cheap machine-made goods, an alien method of administration, a fiscal and currency policy that deprives the people of the very requisites of economic development while it fosters a one-sided dependence on foreign manufactures. India to-day has lost that equilibrium, that

self-sufficiency, that freedom from a one-sided economic dependence that can only degrade the nation as it degrades the individual, and she claims to enter into her own, to enjoy the privilege of which she has been disinherited, to regain that sense of self-sufficiency which is the foundation of all that is great and good both in the individual and the nation. International commerce between nations that are equal in status, enjoy equal opportunities of making free contracts, that exchange not raw materials for finished goods, but goods for goods of a similar kind, is alone beneficial to humanity; such commerce redounds to the mutual benefit of both parties to the exchange, but a one-sided trade relation in which a dependent country year after year parts with its very life-blood in the shape of food and raw materials to another country that gives its tawdry manufactures in exchange is the simplest type of economic exploitation, the obviousness of which escapes notice only by the magnitude of the scale on which it is carried on. The desire for economic self-sufficiency need not be the assertion of an intoxicated nationalism that identifies itself with a gospel of hatred and prejudice and suspicion; it need not be the expression of a self-centred national isolation, each nation for itself and consign the rest to perdition. The four centuries of economic evolution through which Europe has passed have produced to-day an anarchy in which nationalism can assert itself only by an aggressive militant attitude; this evolution has taken place in a soil from which all the healthy elements of mediæval Christendom were deliberately uprooted. But India has had different traditions; her people have been born and bred in an atmosphere saturated with love and peace; her social and economic institutions still bear the imprint of a past in which men were linked to one another by an exchange of co-operative efforts. For India the desire for economic self-sufficiency need not, therefore, mean what it may mean for exhausted and materially and morally bankrupt Europe.

Commerce or exchange of commodities between individuals as between nations is healthy and mutually beneficial so long as the parties to this exchange are on a relatively equal footing in the conditions of bargaining. Free trade carried on under this assumption is the wisest policy, and interference by tariff walls or legislation may be mischievous. But where the conditions of bargaining are not equal, as in the case of a monopoly on the part of sellers or buyers for the purposes of internal commerce within a single country, no one seriously urges a *laissez-faire* attitude as justifiable under those conditions. As

between one nation and another the same principle applies. Trade between a subject country compelled to export its food stuffs and raw materials and the dominant power dumping its manufactured products can never be mutually beneficial; it is an exchange carried on under unequal conditions of bargaining, and no platitudes of free trade can ever undo the mischief wrought by this process of economic exploitation. Protection for the subject country is not a question of fostering infant industries; it rests on the larger issue of making the conditions of bargaining more equal, and is therefore linked up not merely with questions of tariffs, but with questions of excluding foreign capital except on such terms as would correct inequalities and prevent exploitation. As in the case of the individual it is only on a basis of freedom from the cares and worries of finding daily bread that the structure of a larger life can grow and bear witness to the potentialities of the Divine elements, so in the life of nations. The potentialities of national greatness are smothered and the sources of the fuller life dried up where the political environment perpetuates a condition of economic dependence and reduces the people to toil and labour for feeding the over-grown population of an industrialised country.

It follows that no price that this country has to pay can be too great for securing this end of self-sufficiency. We have been listening during these last few months to alarming tales about the sacrifice of the Indian consumers involved in a policy of high tariff rates, about the sacrifice of the agricultural interests, about the sacrifice of subsidiary industries themselves by protection to the basic industries. If the end we are desiring to secure is the freedom of the country from the trammels of an economic dependence artificially induced as the result of our railways, our fiscal policy, our currency experiments and even our educational institutions, then even assuming that this sacrifice has to be faced it is worth facing it. But the killing out of our handicrafts in the past by the advent of standardised goods from the West has entailed already a much heavier sacrifice than any which we may now have to face in the shape of increased prices. What needs to be most remembered to-day, when we seem lost in a maze of tariff rates and in alarms about prices, is that protection does not simply mean the levy of heavy import duties, that it is not a question of tariffs alone, that protection involves the recognition of the fundamental principle that the function of the State is not confined to securing peace and order, but extends far beyond to the ordering and regulation of the material

conditions for the growth of a communal life. Protection at its best is the assertion of the principle that every social group calling itself a nation shall employ its organised efforts for securing the conditions that foster the highest social life of which the group is capable; and if during the days of war the Indian Government organised all its financial and economic resources for multiplying the instruments of slaughter and destruction, Indian public opinion might well insist that in peace these very resources should be utilised for the promotion of the economic well-being of the people not only by tariffs, but also by the promotion of technical education, by the organisation of pioneer industries, by the granting of loans and credit facilities, by the employment of the tax-payers' money in the promotion of the tax-payers' interests.

The danger that looms ahead to-day for all Eastern countries is not the danger of political subjection, but the more insidious danger of economic subjection achieved in the name of those very political shibboleths of democracy and self-government which have held the West enthralled. A few Western nations to-day wield political and economic control over vast territories in Africa and Asia which contain resources in the shape of food-stuffs, cotton, rubber, vegetable and mineral oils and metals. The business firms behind these Powers, with the command of railways and roads, docks and shipping lines, may combine to work these tropical resources and export them to their home countries where flourishing industries will keep contented the large body of Western workers; and capital in the West may thus succeed in making labour a partner in a great sweating system which will replace the exploitation of the Western working classes by the exploitation of Asiatics and Africans. An oligarchy of bankers and financiers and business men working behind the Foreign Offices of a few great Powers might exercise and perfect a policy of economic exploitation under the guise of protectorates and mandatory powers, of trusteeship of weaker people alleged to be incapable of self-government, and might strengthen their hold upon their respective Governments by making them sharers in the booty and reducing the burden of taxation. This is the danger that the East has to face to-day—a danger that lurks even behind the jeremiads of our latter-day prophets who denounce Western economic civilisation in other ways. Take as an instance Mr. Norman Angell in *If Britain is to Live*, where a policy of winning over Soviet Russia and Turkey and the fallen foes and India and the African Crown Colonies is justified not

on grounds of Christian idealism and Christian ideals, but on grounds of economic safety and considerations of economic expediency. India need not be a "friend" of Great Britain, "we may" not "admit them to be good or nice," but "we" do business with Indians as we do business with our tailor, or as "we" command the services of the man who waits on "us" at the restaurant. Or take as another instance the speech of Mr. Innes at the opening meeting of the Imperial Conference on October 2, 1923. "In India we have 350 millions of people—roughly one-fifth of the human race—and if only we can raise the standard of living of these millions and increase their capacity to consume goods, India's potentialities as a factor in international trade and as a market are almost limitless," and Great Britain may even give its paternal blessings to a policy of "discriminating protection" for India, if there is a chance that way for English manufacturers of finding a larger market for their goods.

This is the latest phase of a bankrupt imperialism which, tired of the platitudes of justice and benevolence, now trades on the cynicism of the shopkeeper and the ethics of a degenerate commercialism. And the policy of protection which the subconscious mind of the Indian people is clamouring for is a protection against this imperialistic exploitation now sanctified by a twentieth-century "Holy Alliance." It is as much protection *against* the overgrown industrialism of the West as it is a protection *for* industrial self-sufficiency within her own territories.

P. A. WADIA

Bombay.

WAGES IN THE COTTON INDUSTRY, 1914–1920

"It is never safe to assume that changes in piece-rates are proportional to changes in resulting earnings, both because gradual changes in machinery and methods of production may facilitate output, and on the other hand because the operatives may make less effort when rates are higher, being content with their former earnings.

"In June 1914 trade was only moderately good, and there was some room for improvement in earnings without any change in rates. After allowance is made for this, it still appears that earnings have increased more rapidly than rates, and that in particular the reduction of hours in July 1919 did not result in a reduction in the week's output."—Bowley, *Prices and Wages in the United Kingdom*, 1914–1920, ch. xiv.

PROFESSOR BOWLEY drew these conclusions by comparing in detail the figures of average earnings for one week in each month as returned in the *Labour Gazette* for a large number of cotton-spinning and manufacturing firms, with the recognised changes in piece-rates from June 1914 to June 1920. As he carefully points out, such a comparison is difficult not only because the figures make no differentiation between men, women, boys and girls (total numbers employed and total wages paid are alone stated), and would therefore be affected by the withdrawal of men for military service and their subsequent partial return, but also because no account is taken of short-time working, and therefore deductions as to the rate of wages can only be roughly made. Professor Bowley makes allowance for these factors in selecting periods for comparison, and there seems no reasonable ground for doubting the legitimate nature of the very general inference which he draws as to a more rapid increase in earnings, though he would be the first to admit that no exact statistical measurement can be made from the available data. An interesting point, however, lies in the diagnosis of the nature and causes of this more rapid increase in earnings. If, for example, it is due to "gradual changes in machinery and methods of production," then it is permanent, and provides a most hopeful indication of that continued progress in productive efficiency which in the second half of the last century made possible a greater advance in real wages than occurred in any other big industry. If, on the other hand, it is due to special causes arising from peculiar conditions during the war period, it may

be only temporary, and in its nature it may possibly resemble a somewhat hectic flush rather than the glow of real solid health. Or can it be, as the quotation above seems to suggest, that Professor Bowley attributes a great part of it to an increased rate of output resulting from the reduction of hours from 55½ to 48 per week in July 1919? Can we assume without further proof that the shorter hours enabled the operatives to increase their rate of output to such an extent, particularly in view of the very large increase in list rates, which, as Professor Bowley suggests, may mean diminished effort? If the rate of output has actually increased to such an extent, there would seem to be a very strong case for further experimental reductions in hours, in the hope that output would be still further stimulated. Or is it possible that some quite different cause or causes have been at work to produce such an extra advance in earnings, particularly after July 1919, as to more than counterbalance the reduction in hours? A more detailed inquiry as to the correct interpretation of the statistical comparison might yield results of useful and practical importance as well as mere historical value, and as the result of investigations in Lancashire, the following observations and conclusions in regard to this problem are here tentatively presented. Many points rest on the evidence of employers and trade union officials, and are not in their very nature capable of proof. It would seem, however, that substantial conclusions may be drawn as to the true causes of the extra increase in earnings, and their nature and character, even if it is not possible to determine the exact degree in which each contributed to the total result.

(1) The probability of an increase in earnings as distinct from an increase in list prices due to improved machinery.

It is one of the fundamental principles of the price lists that the operative should obtain some share of the benefits accruing from increased mechanical efficiency. Mr. Wood, in his *History of the Cotton Trade*, calculated that between 1860 and 1906 the average wage increased no less than 49 per cent. solely as the result of the increased efficiency of the operatives and the machinery. The bulk of this increase took place in the period prior to 1886, although earnings continued to increase slowly more than list prices during the following twenty years.

On general grounds, however, any far-reaching change is not to be expected since 1906, for mechanical improvement takes place not at a steady rate but by leaps and bounds, and the last mill-building boom ended in the following year. Mill-building and

the replacement of machinery normally accompany every boom in trade, but costs were too high during the post-war boom. It may, in fact, be confidently asserted that machines for opening, mixing, and carding had reached their maximum efficiency as long as twenty years ago. As regards frames, the tendency is still towards an increase in the number of spindles, but here again the maximum number had very nearly been reached ten to fifteen years ago. Firms who have lately renewed their frames have increased the number of spindles by 5–8 per cent. at the most, and the result on the tenter's earnings would not be considerable. Similarly there has been little or no development either in mules or rings, and to-day there seems little likelihood of any improvement which would affect earnings. A limit has been reached when more spindles would cease to give cheaper production, not on account of mechanical difficulties, but simply through the inability of the operative to work more spindles satisfactorily. A new mill in Oldham completed in 1921 is equipped with exactly the same machinery as the original mill belonging to the same company, which was built during the period 1904–7; and this is the only new mill built in Oldham since 1913. Short of a revolutionary invention, there seems no prospect of much further mechanical improvement on the spinning side.[1]

As regards weaving machinery, there have been some modifications during the last fifteen years, and the almost revolutionary invention of the twisting machine; this, however, has not as yet been very widely adopted, though its extension and improvement is much to be desired, if only on the ground that it will cause the disappearance of that most painful disability, "twister's cramp." The modifications referred to, have taken various forms. Some firms have adopted more specialised types of looms running at a higher speed, but these very high speeds mean more frequent breakages, and it is doubtful whether the weaver actually earns the whole of the higher list price. There has also been a tendency, mostly with very coarse counts, to increase the size of the cops and bobbins. This change necessitates only an adaptation of existing machinery. If the shuttle holds a larger amount of yarn in one piece, the weaver gets a longer run without having to stop for replacements; and with coarse counts earnings may therefore increase very considerably. An investigation of two

[1] In his speech to the World Cotton Congress in June 1921, Mr. Platt, the head of the greatest textile machinery makers in this country, stated his opinion in like terms.

such mills showed that after this change had been made, earnings rose no less than 25 per cent. But the change has not taken place in many mills, and there seems no great likelihood of its extension, for a larger cop or bobbin necessitates a larger and heavier shuttle box, and such force is needed to knock it across the loom that the thread sometimes gets in a tangle, or is broken. Large cops also tend to collapse in the middle, and on medium or fine work the advantage gained does not compensate for these drawbacks.

It may therefore be said that since 1914 there has been no such change in machinery as would give appreciably greater earnings.

(2) The probability of an increased rate of output resulting from a reduction in hours.

This problem does not affect the operatives in card and blowing rooms, as they are paid by time.[1] Frame-tenters are, of course, all paid piece-work, but on general grounds it may be said that their output is mainly dependent on the speed at which their frames are running, a factor which is, of course, outside their control. The yarn does not often break, and without something approaching criminal negligence the loss of production from this cause can never be appreciable. The personal factor does, however, come into operation at doffing times, *i. e.* when the full bobbins have to be removed and the empty creel replenished. The frequency with which doffing takes place varies according to the kind of frame, for on a slubbing frame the yarn is thicker and the bobbins will not hold so much as on a roving frame. Despite the possibility of increased output as a result of shorter hours, I have only heard of one such case, and then the increase was only 5 per cent.

In the spinning-room the output of the mule minder is even more rigidly fixed by the speed of the machinery. The amount of production lost through broken threads is relatively very small, and no amount of physical effort will enable a man to piece more than two, or at the most three threads in each draw, and then they must be very close together. Here, again, doffing and the setting up of new work are the only occasions when increased effort can really have effect, and doffing takes place at the most once an hour, and sometimes less than once a day, depending on the fineness of the counts. It is safe to say that it would be almost impossible for the operatives on the spinning side to

[1] These operatives form about 1·5 per cent. of the total number employed in the industry.

increase their rate of output more than 5 per cent. on the average.

On the weaving side there is more scope. The problem is best realised by a consideration of the term "loom efficiency." If a loom were running absolutely continuously at 180 picks per minute, the maximum loom efficiency is reckoned by multiplying this 180 by 60 for the number of minutes in an hour, and again by the number of hours in the working week. This is taken as 100 per cent. efficiency, and the manufacturer is always trying to raise the efficiency of his shed to this maximum by eliminating every unnecessary stoppage of the looms. Now by general consent the average loom efficiency in the "grey" trade before the war was as high as 85–90 per cent. The possible margin for improvement is therefore extremely small, and a greatly increased output per hour is hardly to be expected, however much the hours were reduced. In this connection it may be stated that there is almost unanimous agreement amongst manufacturers that, so far from an increase, loom efficiency was actually lower in 1919 and 1920 than before the war, and this is borne out by a few random investigations which have been made by the present writer.

On the other hand, in the ordinary coloured trade loom efficiency before the war was probably not higher on the average than 60–65 per cent., owing to the more frequent adjustments required, etc., etc. By general agreement, artificial light means a distinctly lower output in coloured work, and the shorter working week does, of course, mean relatively more hours worked in daylight. Statistical investigation is more difficult in the coloured than in the grey trade, owing to the greater variety of work, but at one large firm it was found that the average loss of weaver's earnings was only 8 per cent. as against a loss of 14 per cent. in the time worked. It may well be, therefore, that some increase in the rate of output has occurred in the coloured trade, but since the grey trade is so much larger numerically, such a small increase would not mean a very appreciable difference in earnings when spread over the whole industry. The same thing applies to all the processes on the manufacturing side, preparatory to the actual weaving; there may have been some increase, greater perhaps in certain cases than in the actual weaving, but the effect on the average earnings of all employed would not be considerable.

Professor Bowley has pointed out that the addition of 30 per cent. to list prices did not completely compensate for the reduc-

tion of hours from 55½ to 48, and that therefore, assuming an unchanged rate of output, earnings would be slightly less. If we concede that the rate of output has increased so as to make good this loss on the average earnings of all employed, and possibly a very little more, it will be all that can be expected on grounds of general probability. That output could be the same for 48 hours as for 55½ is in the cotton trade outside the realm of all reasonable probability. In any case the hours question cannot explain the greater increase in earnings than in list prices before July 1919.

(3) The organisation of the labour force.

If these contentions are correct, search must be made elsewhere than in relation to improved machinery, or to an increased output in the shorter hours, for the cause of the extra increase in earnings. The required explanation is believed to lie largely in the altered organisation of the labour force as a result of the war period. For a change in the amount of machinery controlled by each operative might have very far-reaching effects on earnings: a weaver's earnings are nearly twice as great if he is working four looms instead of two. Since the introduction of the power loom, the number of looms worked by each operative has, of course, steadily increased, though more and more slowly in recent years. If there has been a more rapid increase since 1914, this would clearly account for an extra increase in earnings.

On general grounds, however, it may be said that no great change in the methods of staffing the machines is compatible with maximum efficiency, and the efficiency of production in the cotton trade in 1913 was extremely high. The natural object of all employers is, of course, to obtain the maximum production from their machinery with the smallest possible expense on labour, and the lists on the spinning side directly penalise the employer who does not keep his machinery up to date. The weaving lists, however, do not offer the same inducement to the employer to put more machinery in the charge of each operative—on the contrary, the manufacturer's interest lies in limiting the number of looms per weaver—but this antipathy of interests is somewhat modified by the "tackler" of 10 per cent. paid on the weaver's gross earnings. It has already been noted that machinery has not changed much since 1914, and it is reasonable to assume that some considerable time before then the most economical distribution of labour compatible with maximum output had been discovered and applied.

A great shortage of labour might, however, necessitate a

deliberate sacrifice of maximum efficiency. Such a shortage was created by the war. A large number of men went into the army, and in those districts which are centres for engineering as well as for the cotton industry, men, women, boys and girls were attracted away from the mills by the higher wages to be earned on munition work, though it is also true that many married women returned to their former occupation in the mills. Similarly boys and girls leaving school, tended in many cases to go to engineering works rather than to the mills, as they would normally have done. The shortage was first felt as regards big piecers; the supply in pre-war years was barely sufficient, and enlistment amongst this grade, which is, of course, almost entirely composed of men between the ages of eighteen and thirty, was particularly heavy. To meet this shortage in the spinning-rooms, women were drawn from the card-rooms, and the great demand for women's labour in munition works which arose towards the end of 1915 caused an equally great shortage in the card-rooms. The same sort of causes created a shortage of weavers. This general shortage of labour would have grown much worse if the regulations of the Cotton Control Board in 1917 had not involved a restriction of the amount of active machinery. Yet the Cotton Control Board did not better the existing position, for the "rota" system of "playing off" a certain percentage of operatives in turn for a week at a time merely cut off a portion of the labour supply, leaving the remainder, so to speak, as tightly stretched as before.

It is necessary, therefore, to ascertain the effects of this shortage of labour on the production and earnings of the various main grades of operatives. In the card and blowing rooms it was not possible to substitute unskilled labour to any appreciable extent. The result was that the men who remained had more machines to look after, and as they are paid a time wage calculated on a fixed normal number of machines per operative, an additional machine to the stripper and grinder meant an increase of $\frac{1}{15}$th or $\frac{1}{16}$th in his normal time work earnings, irrespective of the drop in output per machine which probably took place. Some women frame-tenters, as has been said, went to the spinning-rooms, and the result was more rapid promotion for the "little" or "back" tenters. The available supply of children could not readily be increased, and the result was that the great majority of frame-tenters had to share a back-tenter, or in very many cases do without one altogether. The lists provide that where no back-tenter is employed, the tenter shall receive $\frac{9}{10}$ths of the back-tenter's wage: actually in many cases

she received the whole. It must not be imagined, however, that production would fall off by as much as $\frac{9}{10}$ths of the back-tenter's wage, for the principles of the lists are designed to penalise the employer who does not use that amount of labour which will give the maximum possible production. Opinion in the trade seems to be unanimous that production does not fall off to anything like this extent, and it may therefore be assumed that the tenter's earnings were increased by a large part of this allowance in lieu of a back-tenter. Since the *Labour Gazette* figures represent the average earnings of all employed, the effect of such changes would be most marked. For example, in 1913 two tenters might each employ a back-tenter: the gross earnings of the two frames might be £2 10*s*., of which each tenter might get £1, and the little tenters each 5*s*.: the average earnings per head would then be 12*s*. 6*d*. If one back-tenter was withdrawn, and if production decreased to the full extent of that back-tenter's wage, the total earnings of the two frames would drop to 45*s*., but this total has now to be divided among three persons only, and the average would therefore be 15*s*., while it is not, in fact, reasonable to suppose that production would so decrease.

In the mule spinning-rooms, similar new methods of working were devised. The minder might work with one more or less qualified piecer, and the firm would supply one woman "creeler" to assist every two minders alternately at doffing times. Or where the minder went to the army, two piecers might run his mules, sharing the proceeds. Both these methods almost certainly resulted in decreased production, but not to the full extent of the saving effected by the absence of part of the normal staff. Under the first-named arrangement the one piecer got paid, as an extra to his list rate wage as a big piecer, one-third of the list rate wage of the absent little piecer, and the wages of the woman creeler were paid entirely by the firm. In the latter case the increase in wages per head is obvious. The *Labour Gazette* figures would be affected as in the case of the tenters.

Similar results obtained in weaving sheds. The shortage of men six-loom weavers could be met more or less easily by the promotion of men four-loom weavers, but to replace the latter it was necessary to promote children who were not yet sufficiently trained. This resulted in a decrease of the average loom efficiency throughout the shed, and such rapid promotion would not mean higher average earnings per head, since the same number of operatives were employed. But rapid promotion of children created an acute shortage of tenters, Four-loom weavers had

to dispense with them entirely, and a six-loom weaver had to share one with his neighbour, or possibly do the same. The result in this case would also be a drop in production per loom, but not to the full extent of the tenter's wage, and from the point of view of the *Labour Gazette* figures of average earnings, the change would result in much higher earnings per head, since a slightly decreased total wage bill for the shed would have to be divided by a very much smaller number of operatives owing to the decrease in the number of tenters.

There can be little doubt that the increase in earnings beyond the increase in list rates during the actual war years was in the main caused by these changes in the organisation of the labour force—changes which, owing to their peculiar nature, would exert a very marked effect on the *Labour Gazette* figures. It might have been expected, however, that if this were the cause, earnings would have tended to return to an approximation with the list rate advance during 1919 and 1920. In fact, as Professor Bowley's figures show, the tendency was for the gap to widen. Two big factors may be cited as accounting for this. First, the return of men from the army was not so rapid as in some other industries which were put on a priority list. Women who had been working in munition works or elsewhere were in many cases extremely reluctant to return, while the married women who had returned to the mills, in most cases departed speedily to their homes. Many skilled men had been killed, and the Chief Inspector for Factories in his report for 1920 stated that many weavers who had been in the army were also very reluctant to return to their former occupation. Finally, as has been shown, the great shortage was amongst juveniles, and this could be made good in the main only by the normal exodus from the schools, a process which could not be hastened. For all these reasons there was still a great shortage of labour in 1919, and to a large extent the war methods of labour organisation were still in vogue.

Secondly, from the middle of 1919 the potential productive capacity of the industry was subjected to an increasing strain owing to the development of the post-war boom. All firms desired to operate the whole of their machinery, and a labour force which had not been adequate for the restricted production of the war years had now to supply the maximum needs of the industry. While the supply of labour was undoubtedly

increasing, it did not increase sufficiently fast, and to the end of the boom there was a shortage, especially of children. Added to this was the desire of the employer to increase his output at any price, so as to take advantage of the roaring trade, and this led to a relaxation of the rules designed to ensure good quality. As long as the operative could point to a large volume of production, little was said as to its quality. This tendency nearly always operates to some extent in a trade boom, and earnings in consequence increase quite apart from any increase in list rates. In the post-war boom it was accentuated by the shortage of labour.

The beginning of the boom roughly coincided with the reduction in the length of the working week, and the considerations cited above would seem to be a more reasonable explanation of the extra increase in earnings, than the inherently improbable proposition that the shortening of hours led to a greatly increased rate of production, though this may have been a small contributory cause. Practical investigation forbids this much-to-be-desired conclusion. For if the main cause of the extra increase in earnings was the enforced adoption of a new and less efficient organisation of the labour force, that extra increase rested on an economically undesirable basis, and its appearance was of a more or less temporary character. It is impossible to judge from the *Labour Gazette* figures whether during the last three years earnings have receded to an approximation with list advances, owing to the presence of a varying amount of short time. Some part of the extra increase may be permanent, for certain grades have secured definite advances in their standard wages, and extra allowances have been given for some minor operations, while other more permanent changes, including the reduction of hours, have been mentioned as productive both of greater efficiency and greater earnings among certain groups of operatives. But recent inquiries show that the war methods have largely given place to a return to the pre-war organisation of the labour force, though complete restoration would probably still be difficult to maintain if production became normal in volume, owing to the impossibility of increasing the rate at which the children leave school. The acute shortage of labour during the war years has not developed any reorganisation of the labour force, which is superior to the pre-war methods; and indeed it seems doubtful whether those methods can be improved until the arrival of some great revolutionary inventions. During the second half of the last century wages in the cotton industry

outstripped wages in other industries, not through the medium of increased list prices, but almost entirely owing to the increased efficiency of operatives and machinery, as reflected in increasing earnings on unchanged list rates. As has been said, little advance can be expected on present lines in regard to machinery, and the efficiency of the operatives is admittedly at a high level. From the aspects which have been touched on in this article, that steady progress in the efficiency of production which has taken place in the past, seems not so well assured either in the immediate or in the more distant future. Yet on such progress depends in large measure the operatives' hope of a higher standard of life.

J. W. F. ROWE

THE SALE OF CORN IN THE NINETEENTH CENTURY

MEASURE *versus* WEIGHT

A COMMODITY like corn may be sold by measure or by weight. In order to be able to publish official prices of corn, Parliament in times past found it necessary to select one of the bushels in use as the legal or official (but not compulsory) bushel. The one selected was the Winchester bushel. Others were known as customary bushels. The Winchester bushel was the smallest in common use and held eight gallons. Sale by measure was the method in general use at the end of the eighteenth century. Sale by weight, in a complicated form to be hereafter explained, is the method which was used during the latter part of the nineteenth century down to a recent day.

In the eighteenth century, as in previous centuries, the bushel varied in capacity in different parts of the country. When, therefore, the magistrates were called upon to fix the price of bread with reference to that of wheat, they had first of all to find out what a bushel in their locality signified. If it was a customary bushel it had to be reduced to the Winchester bushel, and the magistrates had recourse to tables in which the necessary calculations were made.[1]

Arthur Young complained that "magistrates are very embarrassed to fix the Assize of Bread . . . from the variety of customary measures, for they are confined to the average price of corn and the Winchester bushel; hence the Assize where large customary bushels obtain is necessarily favourable to the baker. . . . This is an evil of very serious magnitude."[2]

The conversion tables, we may suppose, were not always used, particularly in country districts; and in any case, if several measures were in use in the same locality, the magistrates could not find out how many sales were made with each. This point was enlarged upon by Charles Dundas, a correspondent to the Scarcity Committee of 1795. "The uncertain practice of selling corn in the country market by measures of various sizes," he

[1] One such table is reproduced in a supplement to Charles Smith's *Tracts on the Corn Trade*, Observations, p. 14, second edition, 1766.

[2] *Annals of Agriculture*, Vol. XIV. (1790).

wrote, "is an evident fraud upon the consumers of Bread and an advantage to none but the jobbers in corn; who from practice are as well acquainted with the size of every farmer's bushel as with his face. As the measure varies almost every ten miles, the difference is a great encouragement to corn-dealers."[1] Hence, table or no table, the averages were falsified. For suppose in a place where the nine-gallon measure was customary a ten-gallon measure was offered by a farmer. The dealers, observing this, would bid it up, but the clerk would return it as a sale at the customary measure of nine gallons; thus making the market price of wheat by the customary measure too high.

Young and his correspondent were but acting in accordance with the universal maxim, *Where prices rise blame the middleman*, and so they blamed the bakers and dealers, just as a later age would have blamed the railway companies. The errors of which both complained favoured the baker by bringing the official averages too high. But there were other errors in the Assize, errors in the opposite direction, such as reference to the prices of coarse wheat, when the baker was only buying fine flour. Peradventure Providence cancelled error by error! As for the people who were supposed to be the sufferers, they abetted the dealers in their supposed double-dealing. The Winchester bushel was a small one, and the people hated it because it was small. They loved their own because it was their own and because it was big. The bigger it was the better they loved it, for they thought thereby to get cheaper measure, brimful and running over. On popular unreason reform, as so often happens, stumbled.

By the 5th of George the Fourth (c. 74, 1820) the Winchester bushel was, for official purposes, statistics and the calculation of the corn averages, replaced by the Imperial bushel, a slightly bigger bushel. But the new measure was not made compulsory, and in this position it remained for almost a century—until the Corn Sales Act of 1921, which came into force January 1, 1923, made the hundredweight of 112 pounds the only recognised unit of measurement for the sale not only of cereals but also of meal, beans, potatoes and agricultural seeds. "How it was that steps to this end had not been taken years before will always be a mystery," says Mr. J. A. Venn in his admirable *Foundations of Agricultural Economics*, p. 253. Some part of the mystery may perhaps be dispelled by an examination of the evidence contained in various Parliamentary Papers between 1790 and 1900.

The reformers of 1800, dissatisfied with what they had,

[1] Committee (H. of C.) on High Price of Provisions, Third Report, App No. 3. Letter from Charles Dundas of Barton Court near Newbury.

thought they knew exactly what they wanted, namely, sale by weight. They appealed to the example of Ireland, where all forms of grain were sold in barrels by weight. The practice was of long standing and had been made compulsory by legislation in 1705 and 1733. In Ireland, of all places, there was uniformity of measure! From those days to this there was no further legislation for Ireland, which thus retained a monopoly of uniformity.

In 1770 an anonymous pamphleteer wrote: "It is hard to say why this method has not been introduced; for if it was general, every person might be then his own factor. Possibly this very reason is the obstacle, as it is in the interest of some people that the Corn trade should continue to be a mystery." [1] The Committee of 1795–6 on the High Price of Corn recommended that corn should henceforth be bought and sold by weight, the standard Winchester bushel to be converted into sixty pounds avoirdupois, and other grains proportionately; and that weights and balances should be kept in cities and market towns at the charge of the county.[2] In 1800 a well-known writer of the time,[3] when drafting a new Corn Bill for the consideration of the House of Commons, suggested that in the rates of bounties and import duties a small preference should be given to corn sold by weight. This he thought would introduce the practice without any friction and oust rival methods. In one part of England, indeed, sale by weight was already practised, namely in Liverpool and district. Liverpool got it from Ireland, as it got so many things—harvesters, potatoes, dockers and slums. By 1801 it had spread from Liverpool through Cheshire, Staffordshire and Shropshire.[4] But doubts of its legality were entertained. "I believe," said John Gladstone, Esq., father of the statesman, to a Committee of 1820, "the opinions of His Majesty's Attorney and Solicitor-General were taken, and I understood that they

[1] *Considerations on the Exportation of Corn* (Anon.), p. 69.

[2] Committee (H. of C.) appointed to take into consideration the present High Price of Corn, 1795–6, 5th Report. They were acting on the advice of their correspondent, Charles Dundas, from whom quotation has already been made. He wrote: "Salt was originally sold by measure, it is now sold by weight (fifty-six pounds to the bushel); the Act which regulated this in one instant equalised all the salt measures in the Kingdom; the same effect would follow a similar proceeding in the sale of corn by which the assize on flour might be justly set and the relation between the articles of corn, flour and bread clearly ascertained and fairly regulated."

[3] Dr. Skene Keith, "A General View of the Corn Trade and Corn Laws of Great Britain," *Farmer's Magazine*, August 1802, Vol. III., p. 277.

[4] Committee (H. of C.) on the High Price of Provisions, 1801, 7th Report. Evidence of W. Reynolds, corn-dealer.

were disposed to think that the law as it now stands permits the sale of corn by weight, but the trade in Liverpool are by no means satisfied with those opinions and feel great dread of persecution and anxiety that all apprehensions may be removed by a legislative enactment; could the system of selling corn throughout the kingdom be simplified, so as one rule, whether weight or measure, was adopted, a great benefit would be obtained." [1]

There the matter rested until 1834, when, with agriculture again in sore straits, a large and representative Committee, including among others the celebrated statistician and corn factor Thomas Tooke, was appointed "to enquire into the present Practices of Selling Corn throughout the United Kingdom, with a view to the better regulation thereof." A map appended to the Report of this Committee shows that sale by weight now extended from Whitby in the north-east to Gloucester in the south-west throughout the area comprising the growing industrial centres of Lancs, Yorks, Notts, Derby, Staffs, Worcester and Warwick. Now this Committee met in a reforming spirit, and we expect them to declare for the reformer's nostrum, sale by weight, but they do not, and their reasons discover the very real difficulties involved in this apparently simple change.

For what determines at any time the value of corn? The state of supply in relation to the state of demand. But states are silent and impersonal; and value is a subjective thing, the product of the clash of individual opinions. In order that buyers and sellers may form a correct opinion of their respective strengths, they must bargain in uniform terms and be able to consult the results of similar bargains concluded by others. It is here that the importance of a good standard comes in. The standard of sale bears to the value of corn the relation which methods of remuneration bear to the value of labour—with this limitation, that the ear of wheat will not, if inaccurately remunerated, shrink in sorrow or burst with indignation. A good standard must be uniform and tell as much as possible.

Now in the sale of corn, argued the Committee of 1834, three things are wanted to be known—quantity, quality and condition. Quality signifies the inherent properties of the corn; condition, its accidental state. The standard can tell nothing about condition. Corn loses condition if badly stored or carried; but if the sample exposed represents fairly the condition of the

[1] Committee (H. of C.) on Petitions complaining of Agricultural Distress, 1820. Evidence of John Gladstone, Esq., a Member of the House, p. 55.

bulk, be it good or bad, then no inaccuracy is created and no injustice is done. If not, then it is both desirable and just that the bargain should be repudiated or altered. But in the matter of quality the position is different. For a good standard can tell both quantity and quality. Sale by weight gives quantity only. Sale by measure again gives quantity only; but sale by measure combined with a description of the actual weight of corn per measure gives both quantity and quality. For the heavier the corn (*i. e.* the greater the number of pounds which a given measure of it weighs) the better in general will be its quality.

With this in mind and having regard to the fact that sale by measure was in general use in the wheat-growing districts of England and universal throughout the Continent, the Committee of 1834 proposed a Bill to secure the following points: (i) that all corn should be sold by the Imperial measure; (ii) that the weight per measure of corn sold should be returned to the Inspectors who kept the official records; (iii) that a memorandum of the quantity sold with the weight per measure should be given by the seller to the buyer; (iv) that, for the special case of Ireland, all shipments from Irish ports should be made in measure with the weight per measure, or in weight as already, with the weight per measure. Committees propose and farmers dispose! The Bill was never carried.

Pass now over a period of fifty years to a date when British agriculture was again in distress and British growers were well-nigh drowned under the deluge of American wheat. In 1891–3 another Committee on Corn Sales took evidence and made another set of recommendations, which once again were not carried out.

This Committee found that the home trade had evolved for itself a standard which combined quantity and quality, but combined them in a characteristically British fashion—that is to say, with numerous local diversities. The Committee of 1834 had observed the beginnings of this practice and strongly discountenanced it for that reason. In 1891 the great majority of home-grown wheat was sold by "weighed measure," and was so sold until recently. Sales were made by a reference to a measure of capacity such as the bushel or quarter, but the seller guaranteed that the measure would weigh up to a given number of pounds. If the measure of wheat offered for sale weighed up to this or more than this number of pounds, well and good—the buyer made no objection. If it weighed less, the buyer could demand a reduction in the price or even return the corn on the farmer's hands. This practice, which seems to the farmer's

disadvantage, had a reason behind it. Wheat, which is lighter than the standard by 3 per cent., may for that reason lose as much as 5 per cent. in value.

This measure of a given number of pounds, this ideal or standard measure, varied in different localities according to the weight of the wheat which is typical of the locality, and as even neighbouring districts vary considerably with regard to fertility, diversities arose at very short distances from each other. The result was a grotesque complexity. To begin with, not all districts which had the "weighed measure" reckoned by the same measure. Whereas most parts of the country reckoned by the statutory bushel, Cumberland used the Carlisle bushel, which was three times the size of the ordinary one. The eastern counties reckoned by the coomb of four bushels, the Midlands by the bag, parts of Lancashire by the windle, Lincolnshire by the sack, Newcastle by the boll, Flint by the hobbet. Then each of these measures was weighed up to the standard measure of the locality, to the bushel of 60 or 62 or 63 or 64 pounds, to the coomb of 18 stone, the windle of 220 pounds, the boll of 27 stone, the hobbet of 168 pounds, and so on. Finally, though the most usual standard among traders was the bushel of 63 pounds, the standard employed in the official statistics in accordance with the Corn Returns Act of 1882 was the bushel of 60 pounds. Could confusion be worse confounded? And what did it all avail? It availed the farmer nothing save to gratify his fondness for tradition; and it gave the buyer a check on quality at the cost of persistent complexity and occasional friction. The problem, therefore, before the Committee of 1891 was: how get rid of the hybrid?—by reference to the Imperial bushel in the way that the Committee of 1834 proposed, or by reference to weight, leaving the check on quality to be independently provided? Inasmuch as the "weighed measure" was ultimately a standard of weight rather than of measure, they declared for weight and recommended:

> (1) "that the sale of all cereals and the products thereof should in future be conducted in Great Britain, as in Ireland, by a reference to the hundredweight of 112 Imperial pounds, and that no other weight or measure of capacity be referred to in any sale;
>
> (2) "that in every case where conversion of weighed measure takes place, the weights laid down in . . . the Corn Returns Act . . . should always be published in the Returns of Corn Sold in the *London Gazette*, and a statement made to

the effect that the prices quoted in the *Gazette* are the prices for the quarter of eight bushels of such statutory weights." [1]

But nothing happened. Successful as the spirit of the nineteenth century was in drawing a steam-roller over the life of the agricultural labourer and flattening it into a moribund dullness, it failed comically before the marketing peculiarities of the farmer, his master. There was, however, one ground for consolation. In 1891 the farmers were not standing between the country and uniformity, for in the meantime Liverpool had moved on to a weight of its own, different from any used hitherto. Liverpool was now selling by "centals." Mark Lane disliked the innovation and scented an Americanism, but the ex-chairman of the Liverpool Corn Exchange [2] declared that this was untrue. Only California bought and sold by the cental; the rest of America by the bushel of sixty pounds. The cental was adopted in 1858, when the regulation of the weights used in the sale of grain was being agitated in Parliament, and since then it had been carried by merchants in their dealings with millers (not with farmers) over a large part of the country. It "extends up to Carlisle in the north, down the Welsh coast as far as Cardiff; to Oxford in the midlands, to Leicester towards the eastern coast, and to Hull on the far eastern coast; so that the millers and dealers in grain over this enormous area—half England—are entirely familiar with the cental, and yet men talk as if it were an unknown weight." [3] Liverpool's dignity was outraged.

The convenience of the cental of 100 pounds, which is employed in these areas at the present day, is that it is more convenient for calculation than the hundredweight of 112 pounds. One sack—and it is in sacks that the grain is sold from Liverpool—contains 250 pounds, or two and a half centals. "But you told us," Mr. Woodward was asked, "that you buy wheat 60 pounds to the bushel; does that mean that every bushel must weigh 60 pounds?" "No, it is scarcely this; the bushel has practically nothing to do with it; you simply shovel so much wheat into the sack and then weigh the sack, and when you have weighed the sack you lose sight of the bushel altogether." [4] Does Liverpool then of all places pay no attention to quality? No; for the quality has already been checked and determined by the elaborate system of grading which is conducted in America. England led

[1] Report, issued May 15, 1893, p. 7.

[2] Committee (H. of C.) on Corn Sales, 1893. Evidence of Mr. H. C. Woodward, Qs. 505, 599.

[3] *Ibid.*, Q. 522.

[4] *Ibid.*, Q. 553.

the way with the grading of metals in the eighteenth century, America extended the grading system independently to the great agricultural staples; and it was a pure coincidence that at the time Liverpool was introducing the cental, Chicago was building grain elevators and grading grain.

Therefore we must, in conclusion, ask a question which we have hitherto suppressed, namely—How was a big market like Liverpool able to sell by weight before the days of grading? The answer seems to be that Liverpool did not altogether do so. The grain was weighed in sacks containing so many bushels, so that any serious deviation from the normal weight per bushel could be detected. This means that Liverpool was in effect using a "weighed measure." But how did Ireland or any other place ever get on with sale by weight only? The answer seems to be that Ireland was mainly a producer of oats and that in this ruder cereal variation is less important. In England malting barley, which often sells at a higher price than wheat, has hitherto been sold by measure alone; for weight was of no consequence, or rather it was a drawback, the best barley being thin-skinned and light. But grinding barley, which is frequently cheaper than oats, is sold by weight, since the question of quality does not enter in.

There is always a reason for the way in which things are done, even though there are transcending reasons for doing them differently; and a mystery generally ceases to be mysterious when we pry into its historical evolution.

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AN EXPERIMENT IN THE TEACHING OF ECONOMICS AND KINDRED SUBJECTS

THE Oxford Conference of teachers of Economics and allied subjects, held last January, spent the greater part of its time discussing teaching methods and the contents of courses. To the younger men present much of this discussion was familiar, for the ground has been frequently traversed at conferences of teachers of university tutorial classes during the past decade. But the presence at Oxford of the heads of departments from most of the English universities, the variety of experiences and points of view expressed—some sessions were almost testimony meetings —and the decision to meet again next year are all indications of probable important developments in the university treatment of Economics and its relatives.

The need for a stock-taking of our teaching methods is urgent. Economics was for long the Cinderella of the Arts Faculty, but during this century it has made such strides in status and popularity that it is in some universities one of the largest subjects in the Arts curriculum, has an Honours School, and serves as the starting-point for a degree in Commerce. Its subject matter makes a strong appeal to those students who are interested in current economic and social questions, and, given right methods of teaching, its educational value can be made as great as that usually attributed to a training in the classics, mathematics, philosophy or the physical sciences.

Given right methods of teaching! Most of us describe ourselves as "teachers of Economics," but place all the emphasis on "Economics" and have none left for "teachers." We give abundant thought and time to the study of our subject, and devote our spare hours to extending the bounds of economic knowledge. But do we give any thought to our teaching function? Do we consider how the teaching of our special subject should be related to the whole task of producing an educated man? If one-third of our students fail at every examination, is this a reflection on the capacity of the students, on our examination system, or on our teaching methods? For at least twenty years teachers in elementary and secondary schools have given almost as much thought to method as to matter, and the schools have been

revolutionised in consequence. But one doubts if there has been any such drastic change in university methods. Men are appointed to positions involving a large amount of teaching work on the strength of their reputation as scholars, without any thought of their fitness for handling students. Teachers adopt the methods prevailing at the university in which they are employed, or those under which they themselves were trained. Thus we get into a rut—one as deep as those which Arthur Young found on some eighteenth-century roads—from the depths of which we are seldom able to gain a view of the broad field of educational aims and purpose.

Without attempting the age-long task of defining the aim of education, we can at least enumerate the qualities we wish to find in an educated man. Well-informed, certainly, but more than that. Thoughtful, critical in outlook, capable of investigating problems for himself, knowing how to search for evidence and how to sift it, tolerant, socially-minded, able to work with and for others, and so forth. To produce these results students of Arts subjects and the social sciences are, in most universities, subjected to strenuous instruction by lectures. In the two old English universities lectures play a subordinate part in the scheme of things, but in the new ones, both in America and the British Empire, students may be compelled to attend up to twelve or fifteen lectures each week. In addition there are text-books to be read, often covering just the same ground as the lectures, and possibly essays to be written, discussion classes or seminars to be attended. But the lectures are the important part of the work, and attendance at a prescribed portion of a thirty, sixty, or even ninety lecture course is required before a person is permitted to sit for examination in the subject.

Now lectures may be a joy to teacher and student alike, and one would welcome the broadcasting throughout Great Britain of some lecture courses given to-day in British universities. Where the lecture is an inspiration to the student, filling him with a burning desire to go and find out more about a subject, or where it provokes him to doubt and a desire to disagree with the lecturer, its educational value may be great. Further, lectures which give an introductory general survey of the field, leaving the more detailed study to be undertaken by the student, and those dealing with special topics on which the lecturer is an authority, are valuable. But against the lecture system as a whole, as it operates in many universities, discerning students and candid teachers would bring some of the following criticisms.

(1) The teacher speaks *ex cathedra*, and his verdicts are accepted without question.

(2) The student's writing arm is active, but he is mentally as passive as a sponge. He is so busy condensing the lecture into note form, or actually writing down a lecture which is really a dictation lesson, that there is no time for thought or the expression of doubt. The story is told of an Australian lecturer who noticed that one member of his class was sitting, hands in pockets, while other students were writing hard. "You don't seem to be taking my lecture down, Mr. Smith." "No, sir," came the reply. "I have my father's notes here." One wonders of how many teachers the story might be true.

(3) Lectures, especially if compulsory, resemble forcible feeding, and feeding at a standardised pace. The matter of pace is important. The teacher thinks aloud, but not all the members of the class are capable even of keeping abreast of him—especially if they have the distraction of taking notes as well—and many will be unable to digest all the food presented in the lecture. Minds move at different speeds and appetites vary in size; the lecture ignores these facts.

Many other criticisms might be made, such as (*a*) the tendency of students to assume that a full knowledge of their notes will allow them to scrape through, and the consequent neglect of additional reading; (*b*) the influence, not always beneficial, of the personality of the lecturer; (*c*) the possibly demoralising effect on the teacher of repeating year after year the same set of lectures from the same set of notes or actual manuscript; (*d*) the lack of any personal contact, *in the actual teaching work*, between lecturer and student.

If the above general criticisms are fair, it is necessary to search for a method of teaching which will render the student active instead of passive, allow him to study at the pace suitable to his mentality, make him a searcher instead of a scribbler, give him the necessary general guidance and then send him out to study and criticise for himself, and allow for co-operation between the student and his fellows on the one hand and between the student and his teacher on the other. Along such lines run the Dalton plan and "Self-government" experiments which are now being carried out so successfully in an increasing number of schools, and during the next few years students will be coming up to the universities who are in the habit of governing part of their own educational activity, who will know how to work by themselves and will not be content to have dictation lessons and

compulsory lectures. They will want to criticise and question, they will want to do some of the teaching themselves, they will want the class study circle and the discussion group in preference to the *ex cathedra* lecture, they will want to use the teacher as a guide, or as a wall against which they may throw their ideas just to see which way they do bounce—or whether they bounce at all.

Once we teachers have worked out an idea of our function in the educational scheme of things we shall probably evolve many varied kinds of teaching. The following is an account of an attempt to devise methods more in keeping with recent developments in educational thought and practice. The experiment was made in two courses given in the University of Adelaide, but for purposes of illustration the application of the new methods to Economic History only will be described.

The old plan of covering the ground in a course of sixty lectures was discarded. When the class, about thirty-five in number, met on the first day of the session, a typed assignment of work was given to the students. This assignment gave first a brief description of the scope and subject matter of the next fortnight's study.[1] Then came a list of books or selected chapters, both general and specialised; certain books or sections must be read by all, but additional reading on some special topic was expected as well. Finally, a list of about five essay subjects was given, on one of which each student had to write an essay of about 1,200 words.

After the assignment had been read through and explained, the lecturer gave a short lecture which aimed at arousing in the students a lively interest in the period they were to study. The class was shown a distant bird's-eye view of the ground they were to walk on later, or were given the view from various angles.

After this introduction the students went away and for the next twelve days worked by themselves. Summaries had to be made of all books read, and these summaries must be handed to the lecturer at the end of the period for inspection. On the thirteenth day the students assembled in groups of not more than eight, with the lecturer present but sitting in a back corner of the room. A chairman was elected to control the meeting. Each student in turn read his essay, and was subjected to questions and discussion by his fellows. The chairman might then call for the comments of the lecturer, and finally the group and the

[1] E.g. "*English Medieval Trade.* Origins of English capital. The fairs. The Jews. The Gild Merchant. Development of English trade generally." The whole of this assignment work was planned and conducted by Mr. Mackay.

lecturer classified the essay. The students gave their votes by ballot, which were then averaged into various shades of A, B, C, D, and the chairman then opened the signed vote of the lecturer. If there was any serious difference between the group vote and that of the lecturer, the teacher's vote prevailed, but this rule had to be applied only once during the whole course of the experiment. The writer of the essay could challenge the fairness of the verdict if he wished, but this very rarely happened. At the end of the meeting book summaries, and essays which had not been read for lack of time, were handed to the lecturer for inspection. After going through these critically, the teacher again met the class, discussed with it the fortnight's work, and in a short lecture dealt with points missed by the students and generally rounded off the study. To drive the matter further home a typewritten summary was distributed, containing the teacher's views on the period studied, and this was discussed with the class. Then a new assignment was given out, its subject matter outlined, and the class dispersed.

It will be evident at once that this method of study escapes many of the criticisms brought against the lecture system. The student is certainly not passive; he has to read, summarise, and write for himself, with just that small amount of guidance given in the initial talk on the assignment—a talk which might perhaps be compared with the " Contents " pages with which Dr. Marshall and Professor Pigou preface their books. There is no forcible feeding beyond the prescribed minimum of reading; the student can go at his own pace, and travel as far beyond the minimum requirement as he wishes. Writer's cramp disappears, and practice produces marked improvement in the art of summarising books. Above all, the group meetings make possible the gaining of self-confidence, foster questioning and discussion, make students try to do good work for fear of the censure of their fellows, and provide, as part of the day's work, for that " contact of mind with mind " which is always blessed as the essential virtue of a good university, but which usually, in the new universities, has to be sought in the smoke-room or in students' societies.

The experiment was carried on for the first half of the session, and at the end of that period the class was asked to meet, and draw up a report embodying its opinion concerning the method of study and making suggestions for the improvement of the system. This was duly done, and a lengthy report, signed by the class chairman, was handed to the lecturer conducting the experiment. This report may be regarded as expressing the honest opinion

of the students. It first states the advantages of the plan as follows:

(1) Range, depth, and amount of work covered.
(2) Elimination of cramming for mere examination reproduction.
(3) *Lectures.*—(*a*) Not for examination purposes; therefore of greater interest, because topics of wider interest can be discussed.
   (*b*) Gather up the threads of the work done in summaries and essays—clarify, crystallise and correct one's ideas.
(4) *Essays.*—(*a*) Give facility of expression.
   (*b*) Make one definitely formulate one's ideas.
   (*c*) Make for clarity—no haziness of thought can exist after the writing, reading, and criticising of an essay.
(5) *Summaries.*—(*a*) Are direct evidence of work done.
   (*b*) Are valuable for future reference.
(6) *Group discussions.*—(*a*) Extremely valuable. Controlled by students.
   (*b*) All get the benefit of the specialisation of others.
   (*c*) Different points of view are aired and mental activity intensely stimulated by the competitive element.
   (*d*) Are almost social functions; the formal lecture-theatre atmosphere is absent.

The disadvantages are next stated.

(1) Amount of work done is out of all proportion with other university subjects.
(2) Lays an excessive demand on the time of people engaged in other work, or other subjects, to their detriment.

Hence the "constructive criticism" submitted by the class chiefly reflects the feeling that the burden had been too heavy, and urges smaller assignments, a smaller minimum of reading, a longer period in which to do the work, and if possible the extension of the course to cover two years instead of one. That the work was too heavy is admitted by the lecturer, but it is gratifying to see that the class had no desire to go back to the old lecture system.

From the teacher's point of view certain comments can be made on the plan. The work was more exacting and strenuous than a lecture course would have been. To compile an assignment, attend the discussion groups, examine and comment on the book summaries, and deliver a lecture of the type required

was far more exhausting in its demands on one's energy, patience, ingenuity, and tolerance than would have been the preparation and delivery of four lectures. But experience has taught the need for making less heavy the burden for teacher and student next time, and meanwhile the effort was amply repaid by the startling indications of the improvement in the quality of the students' work as the session went on. The class was working for the Ordinary B.A. degree, with one or two Honours men included. For the first assignment most of the students did third-class work, with one or two firsts and a few seconds. When the experiment ended in the middle of the session, nearly all were in the first class for their essays and summaries, a few were in the second, and none in the third. Later on, when the examination confirmed this improvement, students and teacher alike had the satisfaction of knowing that the results were gained by steady work and constant improvement throughout the whole year, and were not due to a successful third term's spurt of hard cramming and lucky anticipation of questions.

Before describing the examination, however, a word must be said concerning the work done during the second half of the session under another lecturer. The field to be covered was the period since 1760, and for this certain books—Macgregor, *Evolution of Industry*, Knowles, *Industrial and Commercial Revolutions*, the *Select Documents*, and an Australian text-book—had to be read. One lecture a week was delivered on topics, British and Australian, on which the lecturer had carried out research, but it was felt that students should know something about the many recent works on modern developments. A book summary meeting was therefore held every Saturday morning. Each student was set the task of summarising one important book, and the list included such volumes as Levy's *Economic Liberalism*, Scott's *Joint Stock Companies* (Vol. 1), Wallas' *Life of Place*, Hovell's *Chartist Movement*, Sombart's *Quintessence of Capitalism*, C. K. Hobson's *Export of Capital*, Williams' *Cecil Rhodes*, Morison's *Economic Transition in India*, and Tawney's *Acquisitive Society*. The student, in a half-hour summary of the book, had to give a general outline of its contents, indicate the important sections which others should try to read, and express an opinion on the value of the volume. Questions and discussion followed, and hard-worked students thus came to know something about the contents of a large number of books they had no time to read. The chief criticism of these meetings, made by one of the students, was that members of the class probably knew little beforehand

about the theme of the book, and their questions and comments were therefore uninformed, rambling and at random. This defect will be overcome in some degree by asking each student to prepare for circulation a digest of his book, and copies of this digest will be handed round the day before the summary is read.

An experimental year ended with an experimental examination. It was felt that the student's classification should depend quite as much on the work done during the year as on the answers to a set of questions. The examination should be a confirmation of the year's work rather than the sole test of it. Therefore all written work done during term was counted as equivalent to one paper, and two others were set on examination day. Further, it was felt that an examination should be not so much a test of memory as of a student's ability to use his books in facing and discussing problems. Students were therefore allowed to bring text-books, essays, book summaries, and atlases into the examination room. By carefully framing the questions we had made it impossible for anyone to copy the answer from the books; but the candidate who really knew his subject could strengthen his arguments and make sure of his facts by reference to the contents of the kit-bag at his side. Actually, the best students seem to have made little use of their books. Their memories were too good, or the time was not long enough to allow them to search for chapter and verse. But all agreed that it gave confidence to know that the volumes were accessible if required.

No claim is made that the teaching plan described above is the only road to the educational Rome. The actual methods pursued last year will be modified at many points this session in the light of teacher's and students' experiences. They cannot be applied to classes containing more than thirty or forty students, unless a staff of tutors is available. Probably other teachers are evolving methods better than those tried in Adelaide. But the results of a year's trial, whether tested in the light of recent educational theory, or by the quality of the students' work and the enthusiastic zeal with which the class attempted herculean tasks, suggest that we are not on a wrong track.

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REVIEWS

A Tract on Monetary Reform. By J. M. KEYNES. (Macmillan & Co. 1923. 7*s.* 6*d.*)

MR. KEYNES dedicates his book, "humbly and without permission, to the Governors and Court of the Bank of England, who now and for the future have a much more difficult and anxious task entrusted to them than in former days." Monetary Reform, in fact, is above all a responsibility attaching to the Central Banks of issue, of which the foremost in the world is the Bank of England. "In the modern world of paper currency and bank credit there is no escape from a 'managed' currency, whether we wish it or not;—convertibility into gold will not alter the fact that the value of gold itself depends on the policy of the Central Banks" (p. 170).

Mr. Keynes's five chapters fall into three parts. The first two are devoted to an analysis of the disorders that have arisen in the realm of currency during and since the war. Chapter I gives a most illuminating account of the consequences to society of changes in the value of money. Chapter II deals with the subject in relation to public finance. Here Mr. Keynes brings out the effect of discredit of the currency in limiting the possibility of procuring resources for a Government by forced issues of paper money. The "flight" from the currency is the method of defence adopted by the public against the efforts of the Government to fleece them by inflation. Perhaps Mr. Keynes is a little too tolerant of the idea of using paper money in this way. It is doubtless impossible to deny that "a Government can live by this means when it can live by no other," while his whole argument is directed to prove that even by this means a Government cannot live indefinitely. And it may be that his solemn disquisition upon inflation as a method of taxation is intended to have a gently ironical flavour. Probably Mr. Keynes has felt bound to take this absurdity seriously because great statesmen and bankers in some parts of Europe have not merely taken it seriously, but have put it into practice and defended their action. The withering denunciation in the "Economic Consequences of the Peace" of the policy of debauching the

currency is more satisfying, even though Mr. Keynes's apparently detached criticism has the advantage at any rate of revealing the exact way in which this extravagant abuse must lead to a breakdown.

In his middle chapter Mr. Keynes deals with matters of general theory. He does not aim at giving even in outline a complete exposition of monetary theory (which would, of course, be out of place in such a book), but rather at filling in certain gaps where the theories commonly accepted are defective.

First of all he re-states the Quantity Theory, introducing, in place of the awkward concept of rapidity of circulation, the much more workable one of what may be described as the *wealth value* of people's balances of cash and credit; k and k' have already become famous among currency experts. Next follows a very acute criticism of the purchasing power parity theory of the foreign exchanges, particularly with reference to the "equation of exchange" and to the relation between internal and external prices. The rest of the chapter is occupied with the two subjects of Seasonal Fluctuations, and the Forward Market in Exchanges, the latter being a topic upon which Mr. Keynes speaks with special authority.

Great as is the interest of these first three chapters, public attention has not unnaturally been mainly attracted to the remaining two, in which are set out Mr. Keynes's practical proposals.

In Chapter IV he propounds three questions:

(1) Do we wish to fix the standard of value near the existing value, or to restore it to the pre-war value?

(2) Should the currency be stable in terms of purchasing power or in terms of certain foreign currencies?

(3) Should a gold standard be restored?

Armed with the results of the preceding chapters, Mr. Keynes decides in favour of stabilising the currency at or near its existing value, and stabilising it in terms of internal prices rather than of foreign currencies.

The gold standard he rejects, and it is this rejection that has aroused more controversy than anything else in the book. He thinks that before the war gold provided a reasonably stable standard of value. "But the war has effected a great change. Gold itself has become a managed currency." Gold "stands at an artificial value, the future course of which almost entirely depends on the policy of the Federal Reserve Board of the United States." The reinstatement of the gold standard means,

therefore, "that we surrender the regulation of our price level and the handling of the credit cycle to the Federal Reserve Board." For the present the Federal Reserve Board is pursuing the policy of a stabilised dollar, "the latest scientific improvements, devised in the economic laboratory of Harvard." It may continue in this path, but even so the adoption of a gold standard by this country would have the disadvantage of placing our currency at the mercy of the Board, for in Mr. Keynes's opinion the Board would enjoy a preponderance of power over the Bank of England. But there is no guarantee that America will adhere to a stabilised gold dollar. The Federal Reserve Board "is still liable to be overwhelmed by the impetuosity of a cheap money campaign," with the inevitable consequences of a wild rise in dollar prices such as occurred in 1919–20. And there is further "the possibility of a partial demonetisation of gold by the United States through a closing of its mints to further receipts of gold." Gold would then be left to depreciate without the support of the American monetary demand.

Mr. Keynes's chief fear is a change of policy in America, bringing about a sudden and inordinate fall in the commodity value of gold. Undeniably this might occur. If it did, it is difficult to challenge the conclusion that, temporarily at any rate, it might be advisable to suspend the free coinage of gold rather than compel the Bank of England to buy all that America might export.

At the same time it is not desirable to exaggerate this danger. Suppose the "cheap money campaign" to materialise, and an expansion of credit on the grand scale to begin. And suppose that the Bank of England and the central banks of other countries which are close to gold parity decide to do what they can to check an excessive credit expansion. Gold will flow from America first to Sweden, then to Canada, then to Holland, then to Switzerland. The drain of gold into these countries would have to be enough to swamp the control of credit in them one by one. It would make but a slight impression upon the American supply of over £800 millions, but it would not be negligible. An export of gold, even if it be no more than £20 or £30 millions, is likely to have a perceptible psychological effect. Once the loss of gold begins, people ask when it is going to stop, and whether something ought not to be done to check it.

By the time the commodity value of the dollar has fallen to that of sterling, the turn of London to attract gold will have

come. If the Bank of England and the Treasury co-operate to prevent the gold from occasioning a credit expansion (*e. g.* if bank rate is kept up and sufficient Treasury bills are sold to draw off the redundant gold into the Currency Notes Reserve Account), London could absorb enough gold to affect the American situation seriously. It is not merely that the withdrawal of £100 or £150 millions of gold would necessitate a corresponding increase in rediscounts. If the Federal Reserve Banks were pursuing a deliberately inflationary policy, they would not take advantage of that to restrain the credit expansion. But the restoration of the gold standard in England and elsewhere would mean that the world prices of American exports would be kept down. The gold exports would, in fact, take the place of the goods which rising internal prices prevented American producers from selling abroad. Now in the American credit system the exporting interests happen to play a very prominent part, and as the demand for their products in the home market is on the whole very inelastic, an unfavourable export market is apt to react sharply upon the state of credit. Thus so long as a credit expansion is successfully prevented in European gold standard countries, the American credit expansion is likely to be kept within bounds. That expectation of rising prices and ready sales upon which a credit expansion feeds itself would be absent from the most important part of the American credit market.

These circumstances are not an absolute safeguard against an American inflationary movement flooding us with gold. Nor can it be taken for granted that the Central Banks of Europe will take the right action to prevent a credit expansion spreading from the United States to their countries. A high bank rate and a credit restriction in face of excessive imports of gold would be in flagrant contravention of all the rules so dear to the thumbs of the City.

But merely to discuss the question whether the gold standard should or should not be restored is to take for granted an advance upon pre-war ideas on the subject of credit control. This once admitted, the course suggested becomes a reasonable alternative to a suspension of the free coinage of gold. It would, however, be open to the objection that it would place upon us " our share of the vain expense of bottling up the world's redundant gold " (p. 175). For the moment indeed our share would be heavy, but it is not at all certain that we could not quickly diminish it. Some of the gold would probably return across the Atlantic when a cold fit supervened there. Some would be absorbed by

countries in Europe and South America reverting one by one to a gold standard.

When Mr. Keynes turns round to view the problem of the redundant gold from the American standpoint, and argues in favour of the suspension of free coinage of gold in the United States, in order to get rid of it, he contends that the depreciation of the dollar "would need to be prolonged and determined to produce the required result. Dollar prices would have to rise very high before America's impoverished customers, starving for real goods and having no use for barren metal, would relieve her of £200,000,000 worth of gold in preference to taking commodities" (p. 201). Is not this a misconception of the alternatives as they would present themselves to the responsible authorities in Europe? The British Government would have to consider, not whether to receive gold or goods, but whether to forgo part of the profits of issue, as the price of restraining an undue expansion of credit, or whether to demonetise gold. The effect of the former course would be (really, but not apparently) to delay debt redemption, and probably to diminish the amount of capital this country could invest abroad. The situation would be much the same in Holland and Switzerland. And even in countries which do not invest abroad it is not at all likely that the Governments and Central Banks would be unwilling to receive gold at the cost of forgoing a part of their imports. Whatever economists think, Governments are in practice much less reluctant to discourage imports than exports.

Thus a violent depreciation of the commodity value of gold arising out of a relapse of the United States into inflation, though not an impossible, is still not a very probable contingency. If there are real advantages in the re-establishment and maintenance of an international gold standard, it would be foolish to abandon these advantages as a mere precaution against a remote danger.

There remains the possibility that the United States may demonetise gold. Mr. Keynes recommends both the United States and Great Britain to take this step, and threatens each with the consequences of the other taking it. If either country abandons gold, the advantages to the other of retaining it are obviously diminished, while the difficulty of keeping up the commodity value of a gold currency unit is enormously increased.

Mr. Keynes hardly does justice to the case for retaining the gold standard. He greatly under-estimates the importance of the vested interests affected. Besides the interests of the gold

producers, to whom he refers, there are those of gold holders and gold creditors. The greatest gold holders are the Central Banks. Suppose that the free coinage of gold is abandoned in England, and that the Bank of England becomes free to lower its buying price for gold below £3 17*s.* 9*d.* the standard ounce. This step would be taken if gold were tending to depreciate. It would save the pound from falling with it, but would hasten the fall of gold itself. Suppose gold fell to £3. The 32½ millions of standard ounces in the Bank of England would be worth £97½ millions, a loss of £29 millions. This would wipe out the entire capital and rest in the Bank's balance sheet, and leave a deficit of over £10 millions uncovered. Thus the first consequence of demonetisation would be the threatened bankruptcy of the Bank.

Mr. Keynes's proposals in regard to the gold reserve are not very clear. The gold is to be concentrated in the hands of the Bank, while the Currency Notes are to be issued by the Treasury. What liability is the Bank to assume against the gold? Is the Bank of England note to continue in existence? That way lies bankruptcy. The liability must be one *fixed in gold*, otherwise this asset of £126 millions becomes a vast speculation in a commodity. It would seem that the Government must buy the gold from the Bank, and then lend it back as a gold deposit. The Bank could only buy and sell gold as the agent of the Government.

Substantially the same procedure would be necessary in every country with a big gold reserve; the gold would have to be taken over by the Government. As backing for its note issue, the Central Bank would substitute for the gold a debt due from the Government, the most unsound of all assets for a Central Bank to hold. It is hardly necessary to add that to mint the gold into token coins never intended to circulate would be a transparent sham.

As to the gold itself, Mr. Keynes says, "as an ultimate safeguard and as a reserve for sudden requirements, no superior medium is yet available." But will that be so, when it can no longer be sold all over the world at a fixed price? Every Government will be anxious to seize opportunities to transform so inconvenient an asset into a credit in a foreign country; every Government will be intensely reluctant to buy more gold. Very soon the gold reserves will all have become useless and burdensome encumbrances.

In the United States there is a combination of all kinds of motives to retain the gold standard. They have powerful gold-

producing interests. Their Central Banks and Treasury hold £800 millions of gold. Their Government is a creditor in gold on a large scale. Their national debt would be placed by demonetisation in a very equivocal position, along with many private debts, which are expressed to be payable in gold dollars of the existing weight and fineness. How would they be payable if the current gold coins became tokens? The gold clause is intended to guard against a depreciation of the current dollar in relation to gold. But how is it to be interpreted if gold depreciates in relation to the dollar? Can the difficulty be set right by legislation within the limits of the constitution? If this is attempted, how long will it take to place the matter beyond doubt?

Under existing conditions the purchase of gold at $20.67 a fine ounce is, no doubt, expensive. But the best prospect of relief is to be found in a revival of the monetary demand for gold in other countries. And this does not need a sensational inflation. A rise of 10 or 12 per cent. in the American price level would bring the Canadian dollar, the pound, the guilder and the Swiss franc to par. If America goes on absorbing the world's surplus gold without the assistance of any other country, it seems likely that sooner or later the dollar will depreciate to the extent required.

On the other hand, even if it be granted that a catastrophic fall in the commodity value of gold is not a probable danger, there still remains the question whether the pound and the dollar, reunited by the old bond of gold parity, can in the future be so stabilised as to supply a satisfactory standard of value. Mr. Keynes fears that the Americans would chafe against any binding agreement. Nevertheless, he looks forward to "an intimate co-operation between the Federal Reserve Board and the Bank of England, as a result of which stability of prices and of exchange would be achieved at the same time." Only he suggests that it "should be allowed to develop out of experience and mutual advantage, without either side binding itself to the other."

A *binding* agreement would in any case hardly be possible upon a matter requiring so wide a practical discretion and so intimate an adaptation to local circumstances as the regulation of credit. The practical question is whether we should now aim at a return to a gold standard, and should hope for the desired "intimate co-operation" to begin as soon as the gold standard is attained, or whether we should abandon the

gold standard and let a new dollar parity grow up out of circumstances.

Mr. Keynes does not quite give the authorities of the Federal Reserve System due credit for the enlightenment they have shown. However much they may have been inspired from Harvard, the fact remains that they have shown more appreciation of the advantages of stabilisation than any other bankers in the world, and have done much in the last two years to prove that stabilisation through credit control is possible.

By the time Mr. Keynes has converted Europe to the doctrine of stabilisation, America will be found quite ready to co-operate, and his "ideal state of affairs," the stability both of prices and of exchange, will become an accomplished fact.

In insisting that stability of prices is more important, even for this country, than stability of exchange, he is almost certainly right. To instability of prices is traceable the trade cycle with its sinister train of unemployment, industrial disputes, crises and bankruptcies. Yet the special interest of London in stable exchanges should not be forgotten. The system of an international clearing house is hardly workable without them. It is true that, if we have a stabilised paper pound, it would be in reality better qualified for use as an international unit than an unstabilised gold dollar. But it is probable that most other countries would still prefer to base their currencies on the gold dollar rather than on the paper pound. And if the gold dollar itself were stabilised, they would certainly prefer it. The pound would then labour under all the disadvantages of seasonal and other short-period exchange fluctuations, which would be a serious deterrent upon the use of bills on London except to finance our own imports.

Mr. Keynes's proposals have been persistently criticised as involving a "managed" currency. This criticism is not very intelligent. With a fully developed credit system the currency must be "managed"; it *cannot* be automatic. At first the Bank of England thought the working of the Act of 1844 would be automatic, and within three years they were faced with a crisis. Some of the critics, however, base their objection upon the intervention of the Government in the task of management. This is a complete misconception of the proposals. Mr. Keynes would place the responsibility almost entirely upon the Bank of England. The Treasury would continue to issue Currency Notes, but only in the present automatic manner.

In describing the existing machinery for the control of credit

he assigns perhaps rather more prominence to the Treasury than the facts justify, and this may be the explanation of the mistake of his critics. He does not quite appreciate the manner in which the management of the floating debt has been separated off from the control of credit. So long as Treasury bills are sold by tender in the amounts required to keep up Exchequer balances, no more and no less, there are no Ways and Means advances from the Bank (except for a week or two after heavy interest payments or bond maturities). With this system Treasury bills differ little for the purposes of the money market from commercial bills. The banks cannot by reducing their holdings "increase their cash and compel the Treasury to borrow more either from the Currency Notes Reserve or from the Bank of England," because if one holder lets Treasury bills drop, another tenderer will always be found, at a price, to buy those that are offered. In reality when the banks need cash, they call it from the money market, which supplies itself from the Bank of England. For the purpose of rediscounting or securing advances from the Bank, Treasury bills and good commercial bills are all one. So long as the Treasury follows this system, and the money market works, the Government keeps clear of any interference in the regulation of credit. It abjures the use of the great power which its control of the floating debt and of the Currency Note issue gives it.

The publication of this very remarkable book marks a stage in the progress of monetary theory in relation to practical affairs. Its influence, already noticeable, will grow, and, even though the precise proposals advocated by Mr. Keynes may not be adopted, the effect of his lucid and masterly reasoning will be clearly seen as policy develops.

R. G. HAWTREY

The Theory of Social Economy. By GUSTAV CASSEL. Translated by JOSEPH MCCABE. (London: T. Fisher Unwin. 1923. 2 vols. Pp. vii + 654. 42*s*. net.)

PROFESSOR CASSEL'S *Theoretische Sozialokonomie* was first published at Leipzig in 1918; and readers of the JOURNAL will hardly need reminding that it has already been twice reviewed in these pages. Dr. Von Koch contributed an "introductory notice" soon after its appearance (JOURNAL, Vol. XXIX. p. 333), and this was followed by Professor Edgeworth's closely-reasoned criticism of the first two books (JOURNAL, Vol. XXX. p. 530).

But the appearance of this English translation, adapted from the second edition (1921), may fittingly be made the occasion of some further consideration of Professor Cassel's views. For attempts—such as this is—to re-survey the whole field of economic theory, and to present systematic conclusions as to the causal relations underlying the activities with which it is concerned, are becoming infrequent: partly because, in the light of the data available, there is little that is new to be said as to the limits within which general principles may be formulated, partly because the mastery of the data, to an extent which renders possible a re-statement of general principles, is in any case beyond the scope of all but the very few. Among those few Professor Cassel occupies a prominent position.

English students will find it interesting to compare Professor Cassel's approach to his subject with that of Dr. Marshall, especially as the former goes out of his way to invite such comparison. It should first be pointed out, perhaps, that there is much which the two authorities have in common. A consciousness of the profound importance of the inter-relations of exchange and distribution; a realisation that such inter-relations are essentially dynamic in character; an emphasis laid, accordingly, upon the significance of the time-element; an insistence upon the problem of value as fundamental—these things are common to both writers. They are, it may be objected, mere commonplaces of theoretical presentation. But if indeed they are so regarded, it is only because of the skill and thoroughness with which Dr. Marshall has discharged the task of a lifetime. Professor Cassel, who is not prodigal of bouquets, recognises his predecessor's analytic supremacy; but probably his indebtedness to English classical economics is even greater than he himself supposes. So, at least, some study of the alleged points of difference to which Professor Cassel calls attention would appear to us to suggest. Of these points of difference three are especially significant—the importance attached by Professor Cassel to the "principle of scarcity" in the determination of value; the substitution of a theory of "pricing" for the classical theory of value; and the elimination of that "dualism" which, in the English theory with which we are familiar, leads to the inclusion of interest and wages among the determinants of cost, while rent (no less than the others, in Professor Cassel's view, the "price" of a factor of production) figures as a resultant. In these three respects, among others, Professor Cassel claims to have simplified, and, in simplifying, to have improved upon, classical economic theory.

We are inclined to think that the points of difference, upon which Professor Cassel lays such stress, are not as fundamental as at first sight appears, and that the novelty of his discoveries is to that extent exaggerated. Consider first of all the "principle of scarcity," that "there is a certain restriction of the possibility of totally satisfying all needs" (p. 7). This, we are told, is "the essential thing that is lost sight of in Marshall's theory of prices" (p. 162). "The whole of his system is an attempt to dispense with the principle of scarcity, or to reject scarcity as a determining factor of prices." This, as Professor Edgeworth has already pointed out, is a gross over-statement. Scarcity, the "fixed limitation of the available means of production," is, surely, but another name for supply-in-relation-to-demand; and hence we learn without surprise (p. 162) that "the attempt" (to dispense with the principle) "has, in a sense, formally succeeded in Marshall's masterly presentation." "But," says our author, "it was only possible because, on Marshall's special assumption, the pricing process is such that the principle of scarcity does not appear externally, although it, naturally, always lies at the root of all the processes of pricing as general regulator." We would not accuse Professor Cassel of *naïveté;* but here, in the same breath with his own criticism of Dr. Marshall, is something very like an answer to it. Is the controversy other, then, than one of these unending disputations *de nominibus et verbis?* Do not the roses smell as sweet, after all, in Dr. Marshall's garden, albeit under old-fashioned labels? The truth is—as we conceive it—that the character of those inter-relations, upon the recognition of which a sound economic analysis primarily depends, is by this time sufficiently well appreciated; as Professor Cassel in effect remarks, if we have not got as far as that, we are dealing with something which is not a science at all. These observations are relevant also to our author's treatment of rent. The suggestion that classical theory involves the antinomy between the prices of labour and of waiting and the price of the use of land, in all its Ricardian crudity, is quite unacceptable. The only deduction that can be drawn from Professor Cassel's criticisms is that he has misconceived the notion of marginal cost. But there is no need to labour the point. As to the relative advantages of Professor Cassel's pricing process, based solely upon scarcity, and Dr. Marshall's conception of cost (as labour plus waiting), the student must decide for himself. But it seems to us that the importance of a theory of cost which stresses the human contribution, as opposed to that of nature, has a great deal to commend

it, and that the non-inclusion in cost of the prices of the use of land, and of natural materials, is not as perverse a complication of the problem as Professor Cassel supposes. Economic theory is not as completely dissociable from public ethics as he would have us believe. The conditions which it seeks to interpret are those created by organised societies of men and women, and there is, therefore, to the extent to which the conscious activities of such societies create a particular attitude of the human mind, a special problem of cost in Dr. Marshall's sense.

The pursuit of a theory of prices is the principal concern of the first of Professor Cassel's two volumes. It remains only to be said that not only in its central theme, but in its incidentals, there is much that will prove to the reader a source of deep intellectual satisfaction. The logical analysis of the concept of production has, says Professor Cassel, been confused with the descriptive analysis of its technique. "An economic consideration of production must start from the fundamental fact that the satisfaction of the needs of humanity . . . must be continuous, and that, therefore, production is a continuous process" (p. 25). Hence "there is no place for an inquiry into the circumstances in which the actually existing material goods came into being" (p. 26). Again, there has been much fruitless expenditure of verbiage in the attempt to distinguish between productive and unproductive effort. "This idea clearly fails to understand that the satisfaction of human needs is an independent aim, and it implies a subordination of man to material goods that is not openly acknowledged, but is, nevertheless, latent in the theory and a cause of great economic confusion" (p. 22).

Not less distinguished by force and cogency is Professor Cassel's treatment of demand. The "classical" exposition of the subject has tended to stress the analysis of the demand for a single "commodity" to an extent which dwarfs in significance some of the essentials of the problem. The demand for any one thing is conditioned, not only by the particular circumstances affecting it, but by the circumstances affecting every other thing with which it is, as an object of human desire, in competition. This is, of course, universally understood by the teacher; but it is often very far from apparent to the student.

Possibly, too, there is a more satisfactory analysis of the notion of profit to be found in this book than elsewhere. There can, in our judgment, be no finality in the resolution of profit into its elements; it all depends on the fundamental position assumed. But Professor Cassel's treatment of (1) effort, (2) waiting, and

(3) risk as distinct from (4) the differential element involved is as convincing as any we have seen, and affords a good foundation for the subsequent study of that most difficult of questions—the extent to which a theory of distribution should be based upon the assumptions of competition on the one hand, and the fact of monopoly on the other (pp. 165–168).

The second volume deals (Book III) with Money and (Book IV) with the "Theory of Conjuncture Movement" ("Conjecture Movement" in the table of contents). Personally we prefer the term "industrial fluctuation." English readers are already familiar with the contributions that Professor Cassel has made to monetary theory. "There are," he tells us in an appendix (p. 635), "two new experiences of fundamental importance which must now be used in a further development of the theory of money: first, the direct dependence of the general level of prices upon the deliberate creation of new media of payment; secondly, the predominant influence of the relative value of money in various countries upon the exchanges between them." But important as these principles are, the foundation of Professor Cassel's theory of money, now "published . . . with unimportant additions, just as it was written before the war," remains unchanged. Book III is very largely historical and descriptive in character, and perhaps exemplifies, even better than does the rest of the work, the author's capacity to deal with economic problems in a manner at once logical and realistic.

The exposition of "Conjuncture Movement" is also largely realistic, and is strengthened by the use of much statistical material, such as has not been made accessible in any similar work. The explanation of industrial fluctuation put forward is not, as regards its general drift, unfamiliar; but the evidence brought forward in support of a view which already meets with very general acceptance—that "conjunctures" can be traced to the maldistribution of resources, as between their capital uses and consumption uses—is marshalled with singular ability. And Professor Cassel's method contains much that other workers are likely to find suggestive as to the application of relevant material.

As to the ultimate cause of "conjuncture movement" we are, it is true, left in the dark; but as we are convinced that any general explanation—and there may be none at all—is psychological, and as Professor Cassel would regard the psychology of social organisation as outside the sphere of theoretical economics, the failure here is hardly surprising. Enough that where there is material progress, industrial fluctuation is inevitable. "The

man who complains of conjuncture movements, and condemns a social order that facilitates or permits them, is really complaining of the advance of our material civilisation" (p. 622). We do not dispute the dictum; but it still leaves much that is socially of some importance to be investigated.

And indeed the scope of economic inquiry, as envisaged by Professor Cassel, demands some comment. In both of these volumes—but especially in the first—the limits of economic analysis are narrowly prescribed and rigidly adhered to. "I intend," says the author, "to treat the economic relations of a whole social body as far as possible irrespective of its extension, its organisation, its laws of property, etc. The ultimate aim of economic science must be to discover those necessities which are of a purely economic nature and which cannot be arbitrarily mastered by the will of men" (p. vi). This restrained interpretation of the economist's functions is one that, to many of Professor Cassel's readers, may seem a trifle *démodé*. It has obvious disadvantages. It involves the substitution of a theory of "attribution" (*i. e.* of distribution among "factors") for one of distribution among men; to understand the place which the village cobbler occupies in the scheme of things, we must resolve him into a complex of variables. We bow to this necessity. But we are waiting—are we not?—for the economist who, surveying, as Professor Cassel does, the whole field, will yet show how to give to the kaleidoscope the further turn it requires, so that the scattered "factors" may piece themselves together again, and make themselves manifest in flesh and blood. Professor Cassel cannot adequately criticise, as here and there he attempts to do, either the possibilities of social organisation or the mutual obligations of societies and individuals, while remaining as loftily indifferent as he seems to be to politics and ethics. We are well aware of the answer to this criticism—that the introduction of political and ethical considerations would deprive the work before us of its character of general applicability. But may not this quality of general applicability be somewhat dearly bought? May not Professor Cassel's detachment of theoretical principles from such "arbitrary" influences as laws of inheritance, property distribution, State regulation of industry, and systems of taxation, have the effect of creating in the mind of the student, who is attracted by the term "social economy," some measure of disappointment?

In conclusion, there are certain criticisms of the format of this work that we ought, in justice to the author, to put forward.

The translation has been competently done, although Mr. McCabe's phraseology—as perhaps is inevitable in a translation—strikes us, here and there, as angular and crude. But if his lapses from style are not infrequent, his lapses from intelligibility are rare. We feel, nevertheless, that the translation should at least have been revised by some scholar more familiar with the technicalities of economic life. There is no reason at all why an industrial boom should be called a "high conjuncture" or the rediscounting of bills the "reflux of bank media."

A further obstacle, which a little trouble would have remedied, lies in the inadequacy of the index. The German original has, it is true, no index at all; and the one before us is practically worthless. And it is troublesome to have to turn to an index in Vol. II for reference to Vol. I. The value of a work of this calibre would be much enhanced too by the addition of an analytical table of contents. The sectional headings provided give little clue to their subject matter, so that it is only by repeated re-reading that reasonable familiarity with the contents of the work can be attained.

Finally, we are much exercised in mind as to what the market for a work such as this, at its published price, is likely to be. It may be one of those books that no student can afford to ignore: it is certainly one that few can afford to buy. And the business man, who would profit much by reading it, is likely to be repelled by the abstract character of the work and by its unfamiliar jargon.

What we should like to see is some freely rendered abridgment of the present work published at about a quarter of its price. In such guise the considerable contributions that Professor Cassel has made to economic theory might be more attractively presented than is possible in a literal translation. We commend the idea to the author and to his publishers.

H. PHILLIPS

Grundsätze der Volkswirtschaftslehre. By CARL MENGER. 2nd Edition. With Preface by his son, KARL, and Introduction by PROF. RICHARD SCHÜLLER. (Hölder, Wien; Freitag, Leipzig. 1923. Pp. xviii + 335.)

IT is now three years since Menger passed away in Vienna.[1] This book is to be a first volume of Remains which may extend into three volumes (Preface, pp. ix, xi). The title is slightly altered; there is no longer, as in 1871, the sub-title "First and General

[1] Obituary by Mr. Epstein, ECONOMIC JOURNAL, June 1921, pp. 271–2.

Part." As projected in 1871 (see present Preface, p. vi), the second part was to have dealt with Interest, Wages, Rent, Income, Credit and Money; the third with Production and Trade, both technically and economically; the fourth with Criticism of the Present Economy and Proposals for Social Reform.

The section on Money, a small one in 1871, now runs to 90 pages, all the original chapters being replaced by the exhaustive article on Money contributed by Menger to Elster's *Handwörterbuch der Staatswissenschaften* (XVII).

In its final much-revised form, in the 3rd edition of Elster's book, this was one of Menger's best achievements, and it is rightly made more accessible.

The controversy excited by the *Principles* on its appearance in 1871, especially the dispute on Method, diverted Menger from the placid accomplishment of his plan, and it remained unaccomplished at his death. His son has given us the means of completing certain parts of it from manuscripts and even printed papers left by his father. The contributions to journals will be reprinted.

It is interesting to hear that Menger never found occasion to alter any main principle, throughout his life (p. x). One of the additions, the doctrine of Wants, now printed (pp. 1 to 8), was ready in 1871, but withheld for more study and material. The expression "opportunity of gain," on which Böhm Bawerk comments (*Hist. of Interest*, 4th edition, 1921, p. 233) occurs first in its place (p. x). The treatment of goodwill and other "Relations" (*Verhältnisse*) is not quite the same as in the first edition; and the "uses" (*Nutzungen*), that are a bone of contention to theorists on Capital and Interest, are handled rather differently. We are promised (for Vol. II of these Remains) the correspondence of Menger and Böhm on the subject (pp. xii, xiii, xiv).

Menger's great services were: (1) the clear statement in ordinary language of the theory of final utility; (2) the distinction between goods of nearer and goods of remoter orders, as a foundation for a theory of Cost; (3) the theory of complementary goods, including what Mill and Jevons called Joint Cost (pp. 14, 15).

The 1st edition described the second distinction (2) as between goods of the lower and of the higher order. Menger at first disliked Böhm's variation of "nearer" and "remoter," but has in this 2nd edition adopted it. It appears that he once thought of saying "goods of more or goods of less complex mediateness";

we should certainly have "needed another for working days." Nearness to the actually finished article or remoteness from it has quite a clear meaning (pp. 21, 22 n.).

A more substantial difference between the 1st and 2nd editions appears on p. 100 (with editor's note).

The name Capital is applied in a stricter sense than in the earlier part of the book. It is now considered as provision for future wants, not simply all goods yielding a "use" (cf. pp. 89, 90). We might call the distinction roughly a distinction between producer's and consumer's "capital."

Menger regards "means of exchange" as the first explanation of Money; "measure of value" comes afterwards (pp. 261, 267, foot, against Knies). He is firmly opposed to Prof. Knapp's view of the power of the State to determine what is or is not Money (pp. 264 top, 269 n.). The idea that we can ever have a commodity so unchangeable as to be a universal measure of value seems to him to be as visionary as the idea of squaring the circle (p. 299; cf. p. 309 top); and there are cases where money is not the measure at all, and only "trade and economic estimate" can help us to valuation (p. 297).

It is to be hoped that, as we have recovered this buried article "Geld," so we shall have again the evidence of Menger before the Monetary Commission of 1892. It was said to have affected the Bourse, probably a unique triumph for an economist (*Protocols*, Wien, 1892, pp. 270, 271).

The editor explains the absence of full references to writings of the last generation by saying that his father's views grew up under the influences prevailing before 1871, and references to the works of that early date are abundant. Some of us may perhaps think no defence was needed; while all palpable hits should be confessed, occasional respite from references is a real boon.

J. BONAR

Foundations of Agricultural Economics. By J. A. VENN, M.A. (Cambridge University Press. 1923. Pp. xiv + 397; 12 illustrations. 16*s.*)

IT is now some thirty years since agriculture came to be the subject of organised study at the hands of persons other than those engaged in the practice of the industry. The history of the first half of the nineteenth century is rich in the achievements of practical men, landowners and farmers, in the improvement both of methods of handling the soil and of the live-stock of the

farm. More recently the scientist began to attack the problems of agriculture, and enormous progress is attributable to the work of chemists, physiologists and botanists in this field. Beginning with the investigations of a few men in private, or semi-private laboratories and experiment stations, this work has now become almost a State service, and considerable and increasing allocations from public funds have been made during the past thirty years for the endowment and prosecution of scientific research in agriculture at the educational centres which have been organised, for the most part during that time, throughout Britain. Agriculture was regarded as applied science; the feeding of crops and live-stock were obviously fitting subjects for scientific study, and a consideration of what could be done to assist the farmer resulted for a long time in the provision of research facilities only in the realms of natural and physical science. In more recent years, however, it has been realised that this organisation of research, necessary and fruitful though it be, does not exhaust the needs of the farming industry, nor does it cover the whole field of investigation. Agriculture is a business as well as an art, and its economic organisation calls for study equally with its technical development. The farmer is concerned not necessarily to produce this or that, nor to produce it more abundantly, nor of better quality, according as science may indicate the way; given access to a sufficiency both of capital and labour, conditions may be contrived under which almost any product may be secured in almost any quantity. The growth of bananas, for example, in Hyde Park might easily be achieved with the help of scientific knowledge of the requirements of the plant, and whether the venture would be worth while depends not upon the possibility of successful culture, but upon the price realised for the fruit on the costermongers' barrows in the Strand. In other words, the main concern of the farmer is to know what produce he can sell, and at what price, and then to raise it in ways which will secure him a margin between expenditure and price as remuneration on his enterprise. Science might indicate that certain large areas of land in Bedfordshire of very moderate quality were ill-adapted to the intensive culture of vegetables; an examination of the economic conditions, transport, markets, would show, on the other hand, that the advantages these areas enjoy in the way of access to large supplies of cheap organic manure for the improvement of the soil, and to insatiable markets for the disposal of produce, mark them out as pre-eminently suitable for this form of cultivation. The way in which the dairying industry has been

developed is another example of the dominance of economic factors in agriculture. The Great Western Railway, for example, carries milk to London over every mile of its system from Cornwall to Paddington. Almost every variety of soil is to be met, but neither soil, nor climate, nor breed of cattle affects the practice of milk production to the extent that it is determined by transport and market facilities.

These examples may appear rather obvious and not to call for much examination. There are, however, many economic problems of urgent importance which can only be solved by extensive and continuous research. How can land, capital and labour best be combined in agriculture to produce the best results for the community? In Australia a farmer in the wheat-belt can handle five hundred acres, or even more, without regular help, by means of a heavy machinery equipment; in Japan, on the other hand, one man will extract a living from two acres of land by means of a prodigal expenditure of manual labour. Between these extremes every type of organisation is to be met; even in this country are found extensive grass ranches, producing little and employing about one man on every two hundred or three hundred acres, and also intensive arable holdings giving work possibly to twenty times as many. The value of these and of intermediate types requires investigation in the interests both of the industry and of the community, and the lack of data by which to test production is responsible for much confused thought. There is no generally accepted standard by which to measure the productivity of the agricultural industry; some writers set up the test of the value of the gross output per unit of land; others that of per unit of labour; others, again, the profit on the capital invested. Again, facile comparisons are made, frequently, between the methods and results of British and foreign agriculture, comparisons which too often ignore the effect of differing economic conditions. These and many similar questions are evidence, firstly, of the growing interest in the economic problems of agriculture and, secondly, of the need for their systematic study. It is remarkable that apart from the work of certain investigators on the historical side, such as Seebohm, Prothero, and Gonner, and others on the question of land tenure, such as Shaw Lefevre, modern research in agricultural economics may be said to begin with the studies of two Germans, Hasbach, who made an investigation of the history and present condition of the English farm worker,[1] and Levy, who examined the economics of large and

[1] W. Hasbach, *A History of the English Agricultural Labourer* (P. S. King and Son, 1908).

small holdings in this country.[1] Since this time considerable progress has been made in the organisation of research in the economics of agriculture. With the assistance of grants from the public funds, five University centres have established departments to deal with this study.

A certain amount of progress has already been made, particularly in the methods of investigation and in the study of particular problems. Lack of adequate data has hitherto prevented any general review of the nature and organisation of the farming industry in this country, and such as exists is scattered, for the most part, over a large range of periodical literature. For this reason the issue of a new publication dealing with the economics of rural industry is to be welcomed, as promising to supply a gap in agricultural literature. Mr. Venn's book deals for the most part with matters of agricultural history, such as land tenure; the history of tithe, rates and taxes; of rural labour; of fairs and markets; of the nation's wheat supply, and so forth; in fact the contents of the book for the most part bear out its title only to the extent that a knowledge of the history of an industry may be regarded as laying the foundation of the study of its present-day structure. In this sense, however, Mr. Venn's essays can be read with real interest. On some subjects, for example, the inclosure movement and the history of tithe, the author has not much to say that is very new; on others, such as British agriculture under the influence of the World War, he has placed on record a condition of farming the lessons of which seem already to have been forgotten by the many. One of the sections of the book most interesting to the student of rural problems is that which deals with the economics of large and small holdings. The history of the development of the larger unit of production, and of the more modern attempt to re-establish the small occupier in large numbers, is recorded very fully, though it may be doubted whether Mr. Venn is justified in regarding the Act of 1819 (59 Geo. III, c. 12) as an early and unsuccessful effort towards land settlement; it is difficult to believe that it was intended as anything more than a measure of poor relief, "a contrivance," as Mill said, "to compensate the labourer for the insufficiency of his wages by giving him something else as a supplement to them." He also expressed the view that the provision of land by the overseers of the poor differed only from the allowance system in that it made the people "grow their own poor rate." Mr. Venn is fully alive to the

[1] Hermann Levy, *Large and Small Holdings: a Study of English Agricultural Economics* (Cambridge University Press, 1911).

difficulty of making an absolute assessment of the relative values of large and small holdings, and his summary of the factors which go towards forming a judgment on the question should help many would-be land reformers to realise more completely the complexity of the problem. The question of occupying-ownership is discussed only from the statistical standpoint. There is no reference to the several experiments initiated by private landowners in different parts of the country in the settlement of small proprietors on the land. Perhaps the most notable of these is that of the Duke of Bedford, at Maulden, where nearly four hundred acres of land was disposed of in 1910 in holdings of various sizes. No deposit was required and the farms are being paid for on the annuity or instalment system at the option of the purchaser. A similar settlement was effected about the same date and upon similar lines by Mr. James Mason at North Leigh, Oxfordshire. In either case the landlord was willing to advance capital at a fair rate of interest for the equipment of the land with houses and building, and the success which has attended both these schemes seems to indicate that their organisation is worthy of examination. The experience of the Ministry of Agriculture in this respect is rather curious, in that the demand for ownership by applicants for County Council small holdings has been practically *nil*. This may be explained, perhaps, by the condition which requires twenty-five per cent. of the purchase price to be paid down, a condition which is absent from the schemes mentioned above.

Mr. Venn is of the opinion that the result of scientific research is already capable of statistical measurement, and quotes official figures of the yield of wheat and barley to support it. Here he joins issue with Sir Henry Rew, the late head of the Statistical Branch of the Ministry of Agriculture, who stated recently that the results of the expenditure of "many millions of public and private money in promoting agricultural education and research cannot be said to be very apparent in the statistical records of output." From the student's point of view Mr. Venn's book suffers from the fact that it has not been planned as a consecutive study of its subject, but consists, rather, of a series of disconnected essays. It has the merit, also, of this defect in that it has enabled the author to concentrate attention on those things which he regards as being of fundamental importance as an introduction to the study of agricultural economics. The book contains some new and interesting illustrations, and some useful graphs and tables of statistics. A fuller index would have added to its usefulness.

C. S. ORWIN

Economics and Ethics: a Treatise on Wealth and Life. By J. A. R. MARRIOTT. Methuen. 1923. Pp. x + 293. 10*s*. 6*d*.

MR. MARRIOTT's book is a stimulating discussion of an old question that comes home with peculiar force to an industrial and commercial community with its organisation still dislocated, its urban population high, and its idealism unabated. The Ethics of which he writes is the moral teaching of Christianity, the Economics primarily the principles expounded by the Classical Economists. Are they at variance? he asks. Can a man be at once a good Christian and an orthodox economist? Taking as his definition of Economics the science of wealth, Mr. Marriott vindicates its claim to isolate its phenomena, and investigate the laws which govern the production, exchange, and consumption of the material things which satisfy desires. The reverse of dogmatic, employing only the conditional mood, Economics is entitled to remind the statesman and the moralist that if a certain course of action is followed, given certain conditions, certain results will normally ensue. Its conclusions are relative, not absolute; but they are worth making, and experience shows that they cannot be disregarded with impunity. He then investigates the working of economic precept in six primary problems of political economy: the problem of production, whose requisites, land, organised labour, and capital, he treats in separate sections; the problem of distribution, under which he inquires what proportion of the product of industry goes as rent to the landlord, as interest to the capitalist, as profits to the employer, and as wages to the employée; the problem of profits, where he agrees on the whole with F. A. Walker in repudiating a ratio between profits and wages, in laying stress on the exceptional abilities of the *entrepreneur* or business manager as the chief determinant of the rate of profits, and in holding that the amount of the wages-fund depends primarily upon the productivity of labour; the problem of exchange (where he has an excellent summary and critique of theories of value); the problem of international exchange, and—a little too far from the discussion upon value and price—the problem of consumption. The last section, a highly topical one, discusses the economic functions of the State. As he passes over this great variety of theories he pauses here and there to cite the opinions of moralist critics and to exhibit their irrelevancy.

One cannot help wishing that in this useful work the author had given rather more patient consideration towards understanding and explaining how the ethical opinions which he criticises have come to be held. Ruskin, the Report of the Archibishop's

committee upon *Christianity and Industrial Problems*, and the two great spirits whom he quotes on p. 101 may not be fully representative of Christian ethical opinion to-day, and stand, perhaps, a little aloof from the ordinary moralist whose outlook is formed by doctrines of social utility rather than by direct scriptural command; but behind their view, as indeed behind that of many others, lies the conviction that conscious life is composed of many other elements and aspects besides those that can be brought into relation with a money measure, the group of satisfactions and dissatisfactions, and that habit and behaviour are profoundly affected both by the manner in which income is earned and the conditions under which it is spent. Furthermore, those who maintain the right of property "for use" are really only going back to Aristotle and defining wealth as *ὀργάνων πλῆθος οἰκονομικῶν καὶ πολιτικῶν*, a sufficiency of instruments for use in household or state, and there can be no reason why these *ὄργανα* should not be "all useful and agreeable things which possess exchangeable value," provided that desire is limited and directed aright; and there, it is maintained, the moralist may legitimately step in and try, as far as possible, to determine its limits. He may hold the doctrine of marginal utility with firm conviction and yet disapprove of the production of the particular article to be exchanged for money. Similarly he may freely accept the precepts of the scientific economists and yet believe that our industrial technique fails to improve the characters of those engaged in it; and he has every right to say so.

One of the best features of the book is the little historical sketches which Mr. Marriott has provided of the growth of our rural and industrial community and the progress of economic opinion. On pp. 128 and 129 the mediæval dislike of "usury" and the stringency of ecclesiastical prohibition has been, perhaps, a little overdrawn. The Champagne fairs and many Italian cities provide notable exceptions, and there were others besides; but upon this point we are waiting for the conclusions of Dr. Holdsworth and Mr. H. G. Richardson.

E. F. Jacob

The British Trade Boards System. By Dorothy Sells, Ph.D. (London: P. S. King & Son, Ltd. 12*s.* 6*d.*)

Dr. Sells has been very industrious. Her book, No. 70 in the London School of Economics Series of Monographs, contains much information that is both important and interesting, and it will be suggestive to discriminating readers. Her subject,

however, presents many aspects and comprehends a large number of trades in the abnormal war and post-war period and, in spite of her industry, her information on many points is far from exhaustive. Many of her conclusions, moreover, do not follow from the arguments presented.

To take a simple example of method, Dr. Sells comes to a general conclusion about District Committees of Trade Boards largely by reference to the alleged fact that, where they exist, these committees, for all practical purposes, do not meet. But she does not account for the fact that the District Committees of, at least, one Board hold long and lively meetings. Again, Dr. Sells brushes aside, without appreciating the real difficulty, the objection to "elaborate" piece lists that they may prejudice the development of improved methods. She treats this objection as quite distinct from another, that the piece rates are standard rates, and, in so doing, lays herself open to the suspicion of rather vague ideas about the meaning of a standard piece rate. There is no evidence of investigation into the piece lists arranged by Trade Boards; and, unless a piece list is not only "elaborate," but constructed with regard to, in the words of the Acts, "the circumstances of the case," it may deprive the efficient employer of the advantage of his efficiency, the securing to him of part of which at least is a principal feature of the best known standard piece rate lists, such as those of the cotton trade. Dr. Sells thinks that the efficient employer can find a way out of the difficulty by inventing new processes not subject to the piece list, but this may be precluded by the nature of the list, or may be difficult whether or not the list is elaborate. Dr. Sells, indeed, seems not to realise that it may be the apparently simple list to which objection may be made. A piece rate list might provide a uniform number of pence for each dozen of roasted potatoes whatever the circumstances in which they were roasted. It is not suggested that Trade Boards have actually fixed such piece lists, but we are not informed as to this, or whether the "elaborate" lists have been rightly constructed.

Dr. Sells gives a number of diagrams to illustrate the relation of Trade Board rates to the cost of living, wholesale prices, rates in other trades, and Mr. Rowntree's "Poverty Line" and "Human Needs" standards. The first of these diagrams, which shows curves of Trade Board rates for unskilled males and unskilled females respectively, of the cost of living, and of wholesale prices for the period 1914 to 1922, is open to criticism, as are several of the observations which Dr. Sells makes upon it. Appar-

ently the rates for the trades more recently brought under the Acts are incorporated as they became effective, the pre-Trade Board position in these trades, though recognised at another place, being disregarded; we are told later, of the earlier Boards, that they "became temporarily dormant because of the regulation of wages by the Ministry of Munitions. . . ." In the circumstances it is difficult to attach any significant meaning to the graphs; the significance of one conclusion, that "examination of the diagram shows also that neither in the case of men's wages, nor in that of women's, has the period since wages overtook the cost of living been so long as the period during which they lagged behind it," is made more questionable by the fact that only a part of a price cycle is represented. Again, Dr. Sells says that "the very fact that the graph for women's rates descends more rapidly than that for men's indicates that women's wages would have dropped even more abruptly than would men's had there been no Trade Board to protect them," but her graphs cannot possibly show what these words appear to have been meant to convey.

Dr. Sells concludes, with reference to rates averaged over the different trades, that "hardly a more suitable level . . . could have been chosen . . . a compromise between the ideas of those who would fix standard rates (meaning fair rates) and those who believe that the subsistence level is the proper one." To define standard rates as fair rates is novel, and somewhat misleading, though the context indicates what is meant; it might, however, be objected that Dr. Sells' conclusion is, in fact, rather arbitrary, and that it does not enable one to judge of the rightness of the rates in any one trade. To turn to another point, when it is stated that "for ordinary trades, the mean rate between that of London and of the country districts, which properly constituted Boards naturally tend to establish by a process akin to collective bargaining, has proved satisfactory," one would like to know wherein the virtue of this particular rate consists, and what answer Dr. Sells would make to such criticism as that this rate may be too low in the one case and too high in the other. At several points Dr. Sells refers to the evolution of certain Trade Board trades, as evidenced by the rapid installation of new machinery and the growth of factory methods, and she appears to find one cause in the legal minimum rates. She seems also to consider that unemployment may thus have been caused. It is unsatisfactory, however, to find such a fundamental problem solved by such statements as "temporary unemployment may

follow the installation of machinery, but in course of time the labour will be absorbed by industry as a whole." Does Dr. Sells think that this is obvious, or that the question of the effect of wages upon employment in a particular trade is adequately dealt with by means of this and other statements of similar generality? When she declares that "from the point of view of tradition, transference of business from the small to the large firms is doubtless to be deprecated, but from the point of view of service to society it is certainly a benefit so long as it is kept under control," the reader may well retort that there may be control and control.

There is often a careless use of words. This appears at the beginning, for Dr. Sells' professed object is a study of the system "under the test . . . of economic chaos." It is also difficult, at times, to know whether Dr. Sells' words are to be taken as ecônomic argument or moral exhortation, as when she says "a wise employer keeps his coffers well filled with the profits of good years in order to cover the lean years."

The side of the book which belongs to political rather than economic science might be subjected to somewhat similar criticism. Dr. Sells shows an ability to acquire information regarding facts and views which is much greater than her capacity for criticism; in a very large subject she has given way often to the temptation to relate inadequate information to far too easily accepted generalisations. It is a matter for regret that she did not limit her study to one of the younger Boards, or to one or two aspects of the system; the book leaves the impression that there is room for several interesting monographs.

ROBERT WILSON

The Fixing of Wages in Government Employment. By E. COLSTON SHEPHERD. (Methuen. Pp. xx + 206. 7*s*. 6*d*. net.)

MR. SHEPHERD has made a real contribution to knowledge. He has taken a part of the field of wage-employment, in which it is possible to examine the reasons and motives that actuated wage-fixers by reference to their own statements before committees of inquiry and in conference; these statements he has compared with the facts of wages, which also are relatively more accessible in public than in private industry; with the result that he is able to state what has as a matter of historical fact determined wages, not what would, or should, or might, be expected to determine them. In the part of the field of employment covered he fairly demonstrates, what is probably true of the whole

field, that wages questions must be approached generally from the side of historical inquiry rather than theoretical analysis.

After a short introduction, in which the constitutional position is put, Mr. Shepherd takes the chief departments of Government employment in turn—the War Department, the Dockyards, the Civil Service, and the Post Office—and gives a critical narrative of the settlement of wages in the last generation by each. These chapters are followed by slighter, but still interesting chapters on the period since 1914, and on the methods of foreign Governments. A concluding chapter sums up the few generalisations that it is possible to make.

The most interesting, because the best documented, part of the book is the narrative of departmental experience. Both the War Office and the Admiralty began by developing their own systems of grading and payment; in both cases the system had a theoretical attractiveness for the social reformer; both departments were, however, autocratic in their attitude to their employees, and both have been forced gradually to assimilate their methods of negotiation, grading and payment to those of private industry. Abundant evidence is quoted that the Government is not always an ideal employer. Mr. Shepherd's conclusion—the passage applies to the Admiralty, but his judgment of the War Office is very much the same—is worth quoting.

> "Theoretically it might have been concluded that the Admiralty system would succeed, for it appears to have embodied the socially desirable principles of continuity of employment and the utilisation of the same men through successive technical changes. Actually the scheme failed, and the reasons for its failure are to be gathered only after experience. The pressure of the need for economy led the Admiralty to exploit its advantages and reduce wages for particular work, while, on the other hand, the workers were not prepared to forgo the chances of high gain, as seen in private employment, in return for the greater regularity of income offered by the Admiralty."

The chapter on the Civil Service, based mainly on the evidence given before the Royal Commission which reported just before the war, is more tangled. It illustrates both the difficulties of applying the rather rigid system of grades and classes, into which the Civil Service is divided, to the various and constantly changing work of the departments, and also the possibilities of "economy," at the expense of the employee, that lie in reclassifying

work and introducing new grades. The Post Office, for which four committees of inquiry, in addition to the Royal Commission on the Civil Service, supply information, brings out the same points, and also the impossibility of reconciling actual scales with either cost of living or volume of work, principles put forward in official defences of criticised rates of pay. The proportion of *unestablished* workers in the State's employment, nearly 50 per cent. in 1914, is an astonishing figure. The only general principle that does apply throughout the different branches of Government service is the "supply and demand" principle. The Government has modified the form to some extent of wages; the amount has been set by the competition of private employment, modified by the strong bargaining position of a Government department and, recently, by trade union action.

There is little in Mr. Shepherd's account of pre-war conditions to support the view, commonly held, that State employees are a favoured class, enjoying privileges due to their power to add political to economic pressure on their employer. It is unfortunate that the treatment of the war-period is not more full, in order to afford material for a judgment of future possibilities. Certainly the war brought about a big change. Within the limits set by his material, however, Mr. Shepherd has done a valuable piece of work. It argues well for the study of Economics in Oxford that a bachelor's thesis should have resulted in so useful a book.

HENRY CLAY

Chinese Coolie Emigration to Countries within the British Empire. By PERSIA CRAWFORD CAMPBELL, M.A., with a Preface by the HON. W. PEMBER REEVES, Ph.D. (London: P. S. King & Son, Ltd. 1923. Pp. 240. 10*s.* 6*d.*)

Chinese Migrations, with special reference to Labor Conditions. by TA CHEN, A.M. (Bulletin of the U.S. Bureau of Labor Statistics, No. 340, July 1923. Pp. 237. 35 cents.)

THESE two volumes deal with a subject the importance of which is fully recognised by all who are concerned with Imperial politics, and especially with the attitude of the Eastern and Western races to one another. Eighteen years have elapsed since the problems involved dominated the field of political controversy in the memorable General Election of 1906; but, though less acute, they still press for an adequate solution. China, as well as Japan, was a combatant in the late war, and the Oriental peoples seem destined to enter very largely into

the sphere of international politics. Some writers, like Mr. Bertrand Russell, go a good deal further. At any rate, Kipling's dictum no longer holds good, for many new forces are tending to bring together the Eastern and the Western nations; but the economic, psychological and biological factors operating require careful study and control. The League of Nations exists to promote free intercourse between all peoples and, by co-operation, to secure a raising of the general standard of life. Tariff barriers, and the exclusion of any nation from the common council are condemned, and the ideal is, undoubtedly, that all men should be able to move freely about the earth. The above writers, however, indicate some of the difficulties that present themselves whenever the white and coloured races come into close contact.

Both of these works are full of interesting facts, though the authors approach their research from different points of view. The latter is concerned mainly with the introduction of Chinese labour into tropical countries, where the supply of natives is inadequate to meet the demands of modern capitalism; while the former also discusses, fully, immigration into lands where there are young, enterprising, British communities.

In tracing the origin of emigration, from the Chinese point of view, there is agreement in concluding that famine and civil strife plus over-population provided a strong incentive, especially after 1860, when Imperial permission was granted to those desirous of breaking the old tradition and leaving the ancestral home; Mr. Ta Chen is right in stating that the agricultural and industrial development of China, together with increasing education and enlightenment with regard to the laws of population, will tend to diminish the exodus, but these forces cannot be expected to work quickly enough to relieve the Western nations from the necessity of facing the dangers born of an ever-increasing inter-penetration of peoples whose standards of living differ greatly. There will always be an inducement to immigration while higher wages can be earned abroad than at home.

The white races, our own included, have a grave responsibility for introducing indentured labour into their colonies in the interests of economic imperialism. The negroes were emancipated in 1833 in the West Indies only to be replaced by Chinese coolies, who also were taken into Australia to fill the gap created by the ending of convict labour. In South Africa the coolies replaced the Kaffirs, who, after the Boer War, preferred to work in their home lands. In the Malay Settlements the Chinaman

was, naturally, more at home, but here, as in every case, it was the methods of recruitment and the conditions of labour that were so deplorable. The record of the British Colonial Office, as revealed in Blue Books and various other official documents, is a black one, but the ignorance of the old colonial officials is too well known to need comment.

The coolies were recruited under the "credit ticket" or the "contract" system. Under the former the coolie was bound to the Chinese broker who paid his outgoing expenses, until he had paid off his debts. This system prevailed in Malaysia, Canada, the U.S.A. and Australia. Under the other system the Chinese entered into a contract with foreigners who had gone to their country, to work for them abroad for some years—very often they were penalised for breaking the contract. As late as 1919 New Zealand was allowed by the British Government to introduce this kind of labour into Samoa. This continues.

While the need for labour in these expanding industrial areas was indisputable, the evils attendant upon these systems were terrible. Not only did brokers profiteer, they often failed to provide decent accommodation on the ships or at the destination. Secret societies terrorised the poor unfortunates throughout their servitude (though the guild system obtaining in China, from which this and other "Overseas Chinamen" societies emanated, had much good in it).

The men, separated from their women-folk, engaged in all forms of prostitution and vice, and syphilis flourished. Even when the Governments intervened to insist on inspection and proper accommodation being provided, they could not solve some of the more fundamental problems.

The indentured system has practically ended, but the root problems remain.

Mr. Ta Chen contends that in Formosa, the Dutch East Indies and France among other places, the Chinese have been industrious, dependable, thrifty and altogether useful workers, and Miss Campbell points out that their main virtue in the eyes of Canadians was their docility; and while they have been addicted to gambling, opium and other pernicious habits, it cannot be denied that they have been good and successful workers in many pursuits. The main arguments against their retention have been that a "debt-bondage" system is morally intolerable; that their presence causes unfair economic competition between white and coloured wage-earners, with the tendency to lower the hard-won "standard of life"; and that, as the Chinese groups

isolate themselves they are a menace to the social order of the white people. It is further contended that "assimilation means miscegenation," which is unwelcome.

The self-governing Transvaal people ejected the Chinese in 1907. In 1903 Canada imposed a poll-tax of $500 on all Chinese immigrants, "who are a separate community, with no love for our laws, institutions, and an almost servile class, obnoxious to a free community and dangerous to the State." In 1901 a language test was imposed in Australia as a measure of restriction.

Mr. Ta Chen maintains that in many cases the Chinese have mixed well with the peoples in the new lands, and he is right in asking that if coolie labourers be admitted, so far as is possible they should receive the same wages and conditions as their white competitors.

All who wish to secure world peace by removing international friction would do well to read these books, which show plainly that a great work awaits the League of Nations in removing race prejudice, and also in regulating the economic intercourse of the peoples. Socialists, in particular, should realise the dangers which will confront a community whose standard of life is high when it embraces the ideal of free and equal contact between all men. Should a Socialist Government resort to some form of protection against races whose standard of life is low? What must be the ideal attitude to be adopted by British Trade Unionists to the coloured labourers? Should racial inter-marriage be regulated? These questions demand solution.

The above books state a good deal, though not all, of the case, but do not suggest true remedies. The East and the West *cannot* be separated much longer, and it would have been better if the League of Nations had been used by these writers as an illustration of the kind of instrument for ensuring the protection of all peoples against economic injustice.

In the last analysis, may it not be that the Counsel for British Columbia, in his evidence before the Canadian Commission in 1900 grasped a great truth in declaring, "As long as you have the desire to profit as the only cause operating between master and servant, just so long will the master insist on obtaining as large a profit as he possibly can?" FRANCIS E. LAWLEY

La Population Anglaise ; avant, pendant et après la grande guerre. By A. ANDRÉADÈS, Professeur à l'Université d'Athènes. (Ferrara, Italia : Casa Editrice Taddei. Pp. 148.)

IT would have appeared to be very remarkable that this book

written by a Greek in the French language and published in Italy should give so sympathetic an account of the English population, if we had not already known Professor Andréadès' extraordinary range of knowledge and interests. Even so the sureness of touch with which he deals with every problem, ephemeral or permanent, that agitated England, especially in the years immediately after the war, is astonishing, and at the same time this review by a foreign observer is full of enlightenment to us. One of its many merits is its compression; in 148 pages we have an account of the salient features of the growth of the population of the British Empire for more than a century.

In the first part is sketched the development of the numbers in the United Kingdom since 1801, with reference to the changing birth- and death-rates and to emigration; it is remarked that the population of England grew last century more than that of any other European country of ancient civilisation, and that while for other countries emigration was "une perte sèche," for this it was in large measure a transference by which the British colonies were peopled.

In the second part we come to the effects of the war. The losses by death both of combatants and of civilians are enumerated, and it is held to be remarkable that in spite of these and of the reduced number of births, the decennial increase was reduced only from 10·9 per cent. in 1901 to 1911 to 5·0 per cent. in 1911 to 1921. This is explained by a smaller loss in battle than those of other European combatants, and a smaller civil loss because the war did not take place in this country, while successful efforts were made to combat disease and to save infant life, efforts which were aided by high wages and less drink. The fall in the birth-rate is considered to be moderate and it is shown that marriages were not checked on the same scale as in France, Italy and Germany. Immediately after the war, marriages and births increased rapidly; but here as elsewhere our author is hindered by the fact that the treatise was completed in 1921, and therefore he was ignorant of the fact of the rapid fall in the number of births in 1922 and 1923, though he indicates its probability. He properly points out that the small, though definite, increase in the proportion of male births is quite insignificant in relation to the balance between the sexes.

It is in the third part especially ("Les problèmes de l'heure presente") that so much sympathetic understanding is shown of the questions that agitated this country in 1919 to 1921. The augmented growth of the towns, the need for emigration and the

difficulty of finding suitable colonists among those who could best be spared, the fall of the birth-rate, which affects the future predominance of the English-speaking nations, the greater fertility of the poorer classes with its possible dysgenic results, the loss of trade and the difficulty of finding work for the adult population [1] —these are among the topics discussed. On the last points just named there is an admirable discussion of the question whether the need is for an increased or decreased birth-rate; the conclusion is well worth quoting:

" L'histoire, au surplus, qui nous parle si souvent de peuples victimes de la dépopulation, ne nous en cité pas qui soient morts d'une apoplexie de natalité. Et pour ce qui est spécialement du pays qui nous occupe, il est évident que l'Angleterre n'aurais pas joué depuis cent ans le rôle prépondérant qu'elle a tenu dans le monde, si, ayant suivi après la paix d'Amiens les conseils de Malthus ou après Waterloo ceux de James Mill, elle était restée un état de 9 ou de 11 millions d'habitants " (p. 77).

An equally careful examination is made of the problems arising from the excess of women over men, greatly accentuated by the war, and the consequent development of the " troisième sexe," that is, of women who must remain unmarried. Here our author is unduly gloomy; we cannot agree that this development " est, peut-être, la consequence la plus terrible qu'a eu la guerre sur l'Angleterre contemporaine." Unmarried women are not necessarily unwanted any more than unmarried men; there is plenty of useful occupation for them, and those who have been occupied will not be the least contented of the vast numbers of elderly women whose existence the statistician can foresee in the not remote future. Neither the moral, the political nor the social life of the country appear to be suffering as was feared.

The final part of this compact work is devoted to questions of the growth of the white population in the Empire overseas.

A. L. BOWLEY

The Dutch Alliance and the War against French Trade, 1689–1697. By G. N. CLARK, M.A., Fellow and Tutor of Oriel College, Oxford.

THE writer of this volume of the Manchester Historical Series has undertaken a difficult and unusual task, but one of no small value from the light it throws upon the economic side of the

[1] On this point see the article on " Births and Population in Great Britain," p. 188 above. To Professor Andréadès the necessary data for this study were, of course, not available when he wrote.

Nine Years' War, and upon the development of International and Sea Law in the closing decade of the seventeenth century. The difficulty of dealing with such a subject lies in the lack of adequate and trustworthy statistics. Mr. Clark's researches have been most thorough, and his book is well documented, but he has constantly to complain of the scantiness of the evidence at his disposal. Specially interesting and valuable are his chapters on English and Dutch Privateering, and on Neutral Commerce. The Nine Years' War from the military and political point of view was inconclusive, and led to no definite results, but, as our author rightly points out, it has a character of its own from the fact that for the first time the two chief sea Powers were united in close alliance against a common foe; the basis of that alliance being an agreement, which the States-General under the dominating influence of William III somewhat unwillingly signed, for a *total prohibition of trade with France.* One of the objects of this book is to show that this prohibitive policy proved a complete failure.

Mr. Clark rightly points out that the principle of "free ships, free goods" had for long been adopted by the Dutch, and had been the chief cause of their wonderful commercial prosperity. Their very national existence had indeed been built up upon the economical results of a freedom of trade so unlimited that, during the struggle for independence against Spain, trading with the enemy furnished them with a considerable part of the sinews of war. It was the attempt of Leycester to interfere with this branch of commerce which brought him into collision with the Hollanders, and led to his resignation of his office as Governor-General in 1585. In 1689, despite the effects of Cromwell's Navigation Act, and of the three English wars, the sea-borne traffic of the world was still largely in the hands of the Dutch. In comparison with it the English carrying trade was insignificant. Hence the alliance with England, brought about by the Dutch Stadholder ascending the English throne, involved the sacrifice by the Hollanders of that principle of "free ships, free trade" which was the keystone of their commercial policy and world-wide trade. William III was devoted to the interests of his native country, but notoriously he knew little and cared little for commercial matters; his whole heart and soul being absorbed in the formation of a Grand Alliance to check the military ascendancy of Louis XIV. Hence his insistence on the policy of "total prohibition of trade with France," because he believed that such a prohibition would be ruinous to his enemy.

In the seventeenth century war against maritime trade was mainly carried on by privateering, *i. e.* by vessels belonging to private persons, but furnished by the State with commissions. But in the Nine Years' War both the English and the Dutch Governments found it extremely difficult to exercise control or to maintain adequate supervision over the privateers. This was especially the case with the Dutch, who had five separate Admiralty Boards, and whose seafaring population had for long years been accustomed to seek their fortunes without State interference. In the case of both Dutch and English privateersmen, Mr. Clark justly remarks, "Devotion to their country's cause was a secondary motive for men and commanders alike. They stole one another's prizes; the English stole from the Dutch and the Dutch from the English, or from their own companions impartially. Sometimes those of the same nation fought among themselves. They flew the enemy's colours to attack friendly ships. They acted in collusion with those who traded with the enemy. They smuggled with violence." Under such a system the attempt to destroy French trade was bound to be ineffective: the more so, as the daring and enterprise of their opponents, the French privateers, has left a record that reads like a romance. The exploits of Jean Bart, of Forbin and Duguay-Trouin have left a memory behind them of which their countrymen are still proud.

The project on which William III was so strongly bent, of prohibiting all trade with France, and by this means compelling that Power to sign a disadvantageous peace, required that France should be surrounded by a ring of enemies. He did not, however, succeed, as he had hoped to do, in getting the two Scandinavian States, Sweden and Denmark, to join the Grand Alliance. Had the two sea Powers, England and Holland, been able to obtain complete command of the sea, which they never did, the presence of these two neutral countries on the other side of the North Sea might not have caused much inconvenience. But as it was, many complications regarding the rights of neutrals arose; and no small controversy between the Governments. Had the sea Powers been able to protect the commerce of Sweden and Denmark from hostile attack they could have controlled it. Actually "there was never a moment in the whole war when the French were not able to injure, or at least effectively to threaten, the neutral shipping, and, therefore, they succeeded in gaining for themselves a share in its services" (p. 93). Mr. Clark has very carefully and fully discussed the bearing of the controversies of

this period upon the growth of Sea Law, and of the rights of belligerents to interfere with neutral shipping. He does not, however, seem to be aware of the fact, that at the outbreak of war in 1689 both Sweden and Denmark, and more especially Sweden, were commercially the dependants of Holland. The Baltic trade had for many years been practically a Dutch monopoly. Almost all the ships which passed through the Sound were Dutch, and the toll they paid furnished a considerable part of the revenue of the Danish king, and the agriculturists of Denmark largely relied on Dutch capital for the development of the chief industry of the land. In Sweden the iron and copper mines, the factories and the commerce of the country were actually in Dutch hands. The town of Göteborg, founded in 1609 by Christian IX, was built by Abraham Cabelliau, an Amsterdam merchant, at the invitation of the king. Cabelliau made it his lifelong residence; and Göteborg during the seventeenth century was practically a Dutch seaport. In the reign of Gustavus Adolphus another Amsterdam merchant, Louis de Geer, brought into Sweden new and improved methods of mining and forging; and during the Thirty Years' War his factories at Finspong, Norköping, Nyköping and Danwick furnished the Swedes and their allies with all the artillery and munitions of war that they needed. And as with the mining industry, so it was with commerce generally. Every town in Sweden was full of Dutch factors, and the carrying trade of the country was almost entirely in Dutch bottoms. Throughout the second half of the seventeenth century there was a large Dutch colony permanently settled in Sweden, which had become nationalised in the country of their adoption, while fresh bodies of emigrants from Holland continued to find the Scandinavian kingdom specially attractive for trade purposes. Dutch settlers may, in fact, be said to have exploited the commerce of Sweden to their own signal advantage, as well as to the benefit of that State, for a period of time that from first to last extended over the greater part of a century. Their most dangerous rivals and competitors were their own countrymen in Holland. The Batavo-Swedes wished to keep at one and the same time their own markets to themselves, and to share in the world commerce of the mother-country. This was the meaning of the decree of Charles XI in 1695 (to which Mr. Clark refers, p. 101), forbidding foreign trading factors to reside in Swedish towns unless they paid a heavy tax. The States-General did their utmost to get this decree repealed, but unavailingly. Thus a very large part of the

ships, which in the Nine Years' War traded under the protection of the Swedish flag, were owned by men of Dutch descent, and were manned by Dutchmen. And to a lesser extent this was the case with the Danish mercantile marine during this war. Money-making was the ruling passion of the shrewd Dutch trader of those days, and was often stronger than his patriotism.

In this war the Dutch supremacy in sea-borne trade was threatened less by France than by England; and the commercial history of the eighteenth century proved conclusively that the Dutch mercantile classes, whether in Holland or in other lands where their enterprise had secured a dominating influence, were right in looking upon the alliance of the United Provinces with England with great suspicion. It must be remembered also that many of the leading statesmen of Sweden and Denmark likewise looked with suspicion on this alliance of the two chief sea Powers. Previously to 1689 they could always rely on the protection of one of them should disputes arise with the other; now, however, they dreaded the results of their union. Hence the insistence with which they pressed their rights, as neutrals, with the result that both the English Government and the States-General found themselves obliged to agree to a limited number of Swedish and Danish ships (so long as they did not carry contraband) being allowed to trade with France. This concession struck at the very root of the policy of total prohibition from which William III had hoped so much.

George Edmundson

Commercial Policy in the French Revolution: a Study in the Career of G. J. A. Ducher. By Frederick L. Nussbaum, Ph.D. (American Historical Association, Washington, D.C., 1923. Pp. vii. + 388.)

The sub-title of this work describes its scope better than the more general title; for the narrative is little more than a conscientious tracking of the work of Ducher and a brief estimate of its influence on such acts as the French Navigation Act of September 21, 1793. Ducher had gained some slight experience of commercial affairs as French Consul at a third-rate seaport of North Carolina which was then much concerned at what is here called British "exclusionism." The "exclusionism" consisted in not admitting United States shipping to the advantages of British shipping in our ports, especially those of the West Indies, where Nelson and Collingwood insisted on maintaining

the provisions of the Navigation Act. Those provisions were modified in favour of American shipping by the terms of the Jay Treaty of 1794, a fact which the author does not mention. More than once he refers to the "monopolistic position of England"—that too after the Anglo-French Treaty of 1786—though he seems to approve the adoption by France of strict protectionism in 1793, and on p. 119 refers to that and other cases of retaliation as determining "the surrender of the Navigation Acts in 1849."

Ducher's relations to the French Protectionists in the Convention and to their legislation are clearly traced, and the Girondin free-traders come in for criticism. Too much cohesion is, however, ascribed to that party, which rarely acted solidly together. If, as is here shown, Brissot wobbled disgracefully on the subject of the emancipation of slaves, first mooted by him, it is unfair to state that "The Gironde favoured the Slave trade: the Mountain was hostile to it." More scholarly is the conclusion (p. 204)—"whether the economic issue determined the alignment of parties must be left in suspense, pending a more thorough analysis of the economic phases of the Revolution." This work contains no reference to Dr. Hecksher's *Continental System*, 1922 (reviewed in the ECONOMIC JOURNAL of 1923), which in its early chapters takes a wider survey of the economic policy of 1793–1801. Dr. Nussbaum, however, has carefully delved in an unexplored corner of French revolutionary policy and has shown its connection with some of the Napoleonic decrees. The book ends with a complete bibliography and index.

J. HOLLAND ROSE

Monetary Theory before Adam Smith. By ARTHUR ELI MUNRO. (Harvard Economic Studies: Harvard University Press, 1923. Pp. xi + 312. Price 15*s*. net.)

PROFESSOR MUNRO points out in his preface that "no survey of early monetary theory has been available in English, and no adequate one in other languages." Thus, while most of those who have studied the development of currency are acquainted with the chief epochs in the evolution, there is a distinct advantage in the presentation of the various aspects of the position at different times, and we get a complete view of it, instead of a brief glimpse of its striking characteristics. In this way the book is thoroughly justified, and its merits are enhanced by a clear-cut plan of exposition divided into periods (the ancient

world, the Middle Ages, the beginnings of the modern age, from Davenzati to Locke, the eighteenth century, a final chapter on Money in Mercantilist Theory, and a good bibliography). Under each period there is the same framework consisting of a discussion of the views of the chief writers on the origin and functions of money, questions of monetary policy, the coinage system, the value of money, price changes, principles of circulation, velocity of circulation and monetary reform. In order to maintain the symmetry of these divisions, references to general economic changes have been omitted, and this is the loss of the reader, for it leaves untouched one problem of considerable interest, namely, to what extent monetary discussions were influenced by economic events or conversely. One can see, very clearly, that the topics in the theory of currency which received attention at a given time were precisely those which became prominent in the commercial life of that period. Money is in some respects like a tooth, no one worries about it till it causes inconvenience. Accordingly it will be only those who can supply the background of economic history that will secure the full results of the author's labours. It would be impossible within reasonable space to summarise the variety and extent of opinions on money contained in the volume. More might have been said upon the views and speculations of the Greeks. Their contribution to the subject is far from exhausted in four pages, and this in its turn reacts on the treatment of the Middle Ages, where the doctrine was so largely influenced by classical works. Also the general standpoint of the Schoolmen deserves somewhat more attention than it receives, especially since their views on money represent to some extent a departure from it. The statement (p. 111) that "John Locke was the first Englishman to adopt the quantity theory" is a little perplexing. That theory seems to be understood in this connection as "the proportion of present money to present trade," being the beginning of a recognition of the importance of the amount of currency in relation to prices. But there were other writers in Great Britain before Locke who held similar views, *e.g.* M. L[ewis], D.D. *Proposals . . . for a Large Model of a Bank*, 1678.

The last chapter is a well-balanced discussion of the almost perennial problem of Mercantilism. The author gives a judicial summary of the essentials in the position, or at least some of the chief of them. Here, again, perhaps the main difficulty is to realise what precisely were the conditions, and then to determine how they should have been interpreted. As regards the

first, the more we try to reconstruct the state of life, both economic and social, during the early years of Mercantilism, the more it appears how natural and almost inevitable it was to place monetary questions in the forefront of discussion. The error, of course, was not to recognise that the then existing conditions were transitory.

W. R. SCOTT

From Akbar to Aurangzeb. By W. H. MORELAND, C.S.I., C.I.E. (London: Macmillan & Co. 1923. Pp. 364.)

MR. MORELAND is to be congratulated on having made a valuable find; he has discovered in the Dutch Public Record Office a mass of new material for the economic history of India; he has not as yet been able to undertake the systematic examination of these voluminous records, but the existence of this large store of unexplored material should, as he observes, be borne in mind by all students of the period.

From Akbar to Aurangzeb may be described as the second volume of that outline of the economic history of India to which Mr. Moreland has devoted himself since his retirement from India. In his first volume (*India at the Death of Akbar*), published in 1920, his design was to present a sketch of the economic life of India at the opening of the seventeenth century, and "starting from this date to trace the economic story of the next three centuries, first in the narrations of travellers and the early Letter Books of the East India Company, and then in the more copious official records and publications of later times." The period covered by the present volume is of particular interest for two reasons: firstly, it is the opening of a new epoch which is characterised by direct trade between India and Western Europe; and secondly, it is the period when the economic conditions of India are first discussed in the reports and letters of European merchants. On matters of political history Professor Jadunath Sarkar challenges, I think justly, the credibility of European witnesses, but he acknowledges the value of their narratives "as throwing light on the condition of the people and the state of trade and industry." It is for this purpose that Mr. Moreland makes use of them, and I have no doubt of their value when the assertions of European witnesses are checked against each other and controlled by Mr. Moreland's intimate acquaintance with the industrial organisation of modern India.

Did the advent of European commerce produce any marked

change in the economic life of India? The answer given by Mr. Moreland is in the negative. The volume of European commerce in the period covered by this book was so small, from eighteen to twenty lakhs a year, that its influence upon the industrial system of India as a whole was negligible, though particular classes of artisans (growers of indigo and weavers of cotton cloth principally) in a few localities did derive substantial benefit from the opening of new markets. But speaking generally the system of production which prevailed at the death of Akbar remained unaltered during the reigns of Jehangir and Shah Jehan. "The land, by far the most important source of national income, was cultivated in small holdings by peasants, for the most part short of capital, and contributing a large share of the produce to the revenue of the State. Other forms of production, whether mining or manufacture, were likewise organised in small units and they were dominated by scarcity of capital and the demands of the Government or its nominees." This was, of course, the system prevailing in Europe before the industrial revolution; it was founded, as Mons. Paul Mantoux observes, "upon the co-existence and the close alliance of production on a small scale in agriculture and production on a small scale in industry." It is the system which has survived into our own times in India, and it is now slowly yielding ground to a capitalistic organisation.

What, then, Mr. Moreland's book does is to extend our knowledge; it does not compel us to revise our opinions; the new facts which he has brought to light are valuable corroborations of the truth of the hypothesis which had been provisionally framed before they were known. I should select as particularly instructive his analysis of the trade in cotton goods. All of it is interesting, and the fact that Indian cotton cloth was orginally purchased by the Dutch to barter against spices in the East Indian Islands is new to me, at least. In Chapter VII Mr. Moreland shows vividly the catastrophic results of famine in India before the days of roads and railways. His study of the famine of 1630 is a valuable addition to the history of Indian famines. The letters sent from the English factories in India mention the prevalence of cannibalism "in this direfull tyme of dearth," but I have seen nothing so convincing as the narrative of Van Twist quoted (p. 212) by Mr. Moreland. The following specimen must here suffice. "Some of our Dutchmen, coming from Ahmadabad, found some people sitting at a little fire where hands and feet were cooking, a terrible thing to see. Even worse was it in the village of Susuntra, where human flesh was sold in open market. This

terrible divine punishment fell chiefly on the poor, who had nothing in store." I doubt whether this story will be believed, in modern India. "Le drame du pain au dénouement funèbre," as the Vicomte d'Avenel says, "ne se joue plus. Il est si oublié qu'il en devient improbable."

But though the famine of 1630 "disjointed all trade out of frame" and reduced the industrial efficiency of the province of Gujerat for years, such visitations were only occasional. The evil of bad government was chronic. Mr. Moreland's chapter upon the economic influence of the administration deserves very careful consideration. I confess that the sombreness of the picture surprises me; his conclusions suggest, as he himself confesses, that "the India of the seventeenth century must have been an Inferno for the ordinary man." The farming of taxes "by the year to the highest bidders" must certainly have produced calamitous results to the people, and the evidence of the misery thereby caused in certain places and at certain times is incontrovertible. But if such misery had been universal India would surely have made a painful impression upon all European visitors. This was by no means the case. Terry, for instance, speaks of India in terms so glowing that he is constrained to add: "But lest this remote countrey should seeme like an earthly Paradise without any discommodities, I must needs take notice there of many lions, tygres, wolves, jackals (which seeme to be wild dogs) and many other harmful beasts." "But," he continues, "there is no country without some discommodities; for therefore the wise Disposer of all things hath tempered bitter things with sweet, to teach man that there is no true and perfect content to be found in any kingdom but that of God." A very proper and wholesome reflection in the mouth of a grave chaplain of the East India Company, but surely pointless and superfluous had India been an Inferno for the ordinary man. Terry was two years and a half in India, and to my thinking he was an intelligent observer, and though I fully acknowledge that his evidence cannot carry the same weight as that of Pelsart, Linschoten or van Twist, yet I would not altogether disregard it, if only because it brings some light into a picture which would otherwise be too black to be credible.

THEODORE MORISON

Die Gestaltung der Wirtschaftsentwicklung aus ihren Anfängen heraus (Primitive Economic Life). By RICHARD THURNWALD. Separately and also in *Die Hauptprobleme der Soziologie.* Munich: Duncker and Humblot. 1923. Pp. 60.

ETHNOLOGY has been remarkably slow in giving us a picture of primitive economic organisation. It is not difficult to find the reason: in economics even more than in sociology it requires a highly trained eye to perceive the *fact*—the scientifically relevant, the rule, the law—under the surface of apparently shapeless human behaviour. The savage can satisfy his hunger, thirst, his need of shelter and clothing in a relatively simple manner. The amateur traveller, missionary, planter, who is on the look-out for the *homo œconomicus* of the current text-books, if he does not overlook economics altogether, finds that there is nothing to say about this aspect of savage life. Hence in our typical ethnographic description we find much about the superstitions and beliefs, war customs and ways of cannibalism and head-hunting, but hardly anything at all about economics.

It needed the trained sociologist, acquainted also with economic principles, to show that there is much to be said about savage economics (cf. Schwiedland, *Anfänge und Wesen der Wirtschaft*, 3rd ed., Stuttgart, 1923). The facts, as they become revealed by recent researches, are often blurred and somewhat diffuse; sometimes ensconced in quaint borderlands between practical and ceremonial pursuits, as, for instance, in the remarkable customs of the *Kula* type, described by Prof. Malinowski in his *Argonauts in the Western Pacific* and in the ECONOMIC JOURNAL (March 1921). But they are always to be found, and most modern ethnographic records of field-work no longer ignore the economic aspect.

No student of Social Anthropology, however, has contributed as much to this branch of learning as R. Thurnwald, now reader in the University of Berlin, who during his several expeditions to New Guinea and the Melanesian Islands has been for years in close personal contact with the natives, and has given proofs of his methods and abilities in a considerable number of first-rate publications. The above memoir on early economic life is therefore of special value, for it unites unequalled experience in the field with a thoroughly theoretical grasp of the subject.

The author starts with an analysis of the simplest type of

economic organisation. He shows, that besides the simple food-procuring activities of the lowest savages, besides the somewhat more complex methods of the higher barbarians, we find, right down to the level of lowest savagery, a great deal of human activity devoted to what could be called *ideal* aims; that is, work not devoted to useful and rational ends, but squandered on some magical superstition or religious belief, or serving to satisfy some of the sinuous vagaries of native tradition. It is in the relation of this para-economic effort to the rational and adequate methods that, according to Thurnwald, some of the most interesting chapters of primitive economics can be found. For gradually—under the stress of harsh conditions of life, with the advance of knowledge and the development of technique, with the increase of population and the closer knitting of the family, clan, local grouping and State—there develop the rational schemes of work and enterprise. But these adequate, really economic modes of activity run for a long time side by side with the blind-alleys of para-economic work, each influencing the other in many interesting ways.

Professor Thurnwald gives among others a most valuable account of the psychology of primitive work. The native works not only for his means of subsistence, but also for the display of personal vanity, for social distinction, for the acquisition of magical powers and other forms of self-enhancement. It is interesting to follow, for example, the gradual development of money. This important social achievement hardly ever grows out of any object of use. It usually evolves out of some typical ornament or artistic production, out of some specially perfect type of implement or ceremonial object. Since with savages there is no common measure of economic value, "money" such as it is cannot serve to express it. Primitive money has therefore no direct relation to *capital* as we use this word, nor can it be strictly regarded as a medium of exchange. It is interesting to note that Dr. Thurnwald independently arrives at the same conclusions as those reached by another field-worker on economic matters, namely, Malinowski (cf. his *Western Argonauts*, chap. vi. and *passim*). The earliest forms of capital are to be sought in such commodities as fruit-bearing trees, domesticated animals and slaves.

Taking everything into account, Thurnwald is compelled to reject Professor Buecher's theory of an early stage of "closed housekeeping." The primitive unit of economic life is not the house, nor the family, but the *communal group*—either the clan

or the local settlement. Barter plays an important rôle even in very small communities.

Thurnwald refuses also to over-emphasise the dependence of native economics upon natural surroundings. Primitive man in possession of a simple technique only is obviously in a large degree determined in his pursuits by the environment. But how to account in the same deserts for the existence of Bushman hunters and of Herero cattle-breeders? Why do we find peoples with very different political and economic organisation in the same climate and cultural conditions—as, for instance, in the South Sea the Samoans or the Maoris with an aristocratic and feudal system on the one hand, and the Papuans with hardly any chiefs and a system of communal partnership on the other?

Thurnwald shows that the nature of economic life depends on three factors:

(1) First there is, of course, the *natural environment.* This sets the economic problem, and at the same time it yields some —at times a great many—of the means of its solution.

(2) The stage of *knowledge* and of *technical development* supplies man with most of his means and ways.

(3) A third and a very labile factor is the type of *social organisation,* the type of relations obtaining among men and groups of men. Each political type of society is marked by its own system of estimating and selecting persons for leadership. And this influences the economic as well as all other functions of that society.

On the whole one comes to the conclusion, reading Thurnwald's thorough and stimulating books, that economic rationality and adequacy of means to ends had to be *invented,* just as much as the potter's wheel or the plough or the use of metals.

Thurnwald shows us how the economic process is not only the outcome of human intellect, but how it results from a complex play of instincts, working on and worked by the forces of environment and aided or hindered by social tradition and organisation (cf. my own *Volkswirtschaftslehre,* especially Vol. I., 3rd ed., Stuttgart, 1923).

The present study of Thurnwald is undoubtedly the best statement of economic development, based on an extensive personal acquaintance with natives, aided by a wide learning and a thorough grasp of economic theory.

EUGENE SCHWIEDLAND

Wirtschaftsgeschichte. By MAX WEBER. Edited by S. HELLMANN and M. PÁLYI. (Munich: Duncker & Humblot. 1923. Pp. 348, large 8vo.)

FOR a quarter of a century Lujo Brentano lectured at the University of Munich on Economic History. These lectures having enjoyed a great success, the students requested his successor Max Weber to discourse on the same matter. He did so in the years 1919–20, but without the bright concrete pictures of European development which Brentano had given. Following his special interest in sociology, Weber gave a "Summary of *universal* Social and Economic History." He died suddenly in the summer of 1920, leaving only loose leaves of notes, and a professor of History and an economist of Munich have compiled this volume with the help of the notes and transcripts of students.

As a result of these origins, the volume is not so compendious as other works of Max Weber's, but its diction is fresher, simpler and better arranged. The abundance of its contents is shown by the Index occupying no less than 29 pages compared with 315 pages of text. Indeed the book shows a marvellous knowledge on the part of the author, embracing all times and peoples of the earth,—as well as his inclination to employ incessantly special technical terms frequently formed from foreign roots.

Weber, having cultivated *universal* economic and social history, illustrates matters of agriculture, crafts and mining, trade and currency, industry and finance by reference to ancient Egypt and Babylon, to classical antiquity, to Indian, Chinese and Japanese conditions as well as to mediæval and modern European civilisation. Moreover, Max Weber was able to *see* the reality and to realise men of the most different races, times and countries.

As an example of his treatment of his subject matter we may refer to his elucidations of money (p. 203 and following), where —it may be mentioned—the only paradox of the book is to be found, viz.: "Money is the *creator* of individual property." He touches on various objects of which ownership and inheritance inhered in primitive epochs only in men or only in women, and puts the emphasis upon money as fulfilling two fundamental functions—as a compulsory means of payment and as a general means of exchange. This function of money as a general means of exchange comes from foreign commercial intercourse, peace between two countries being in early times based on a continued exchange of presents between their rulers. The further rôle

of money as a means for heaping up treasures is derived from the fact that the chieftains had to maintain a train of followers to whom presents had to be made on special occasions. Hence the extraordinary appreciation of treasures by Indian Rajahs and Merovingian kings; the "Nibelungenhort," too, is nothing else than a treasure of such a character.

Weber distinguishes in general: *ornamental* money, *useful* money (corn, salt, tobacco, arms, ironware), *dress* money (furs, hides, woven material of foreign origin) and *token* money (Chinese counters are circulating in some parts of India; fur money existed in Russia in the shape of small pieces of fur, unfit for use).

Payment is frequently effected by a sum of diverse kinds of money, *e. g.* in Java by one precious stone and twenty mother-o'-pearl shells; similarly with the Indians of Missouri a wife was bought for 2 knives, 1 pair of trousers, 1 blanket, 1 gun, 1 horse and 1 leather tent—this amounting to the sale of a wife for one complete warrior's outfit.

Contrary to those who believe in an imminent decay of capitalist civilisation, Weber notes, that the modern *nationalist* State gave capitalism high chances for development, and he is consequently of the opinion that capitalism will last till the nationalist States themselves have given place to a unique Universal Commonwealth.

Every reader will feel indebted to the editors for their having made these suggestive unwritten lectures accessible to the public.

EUGENE SCHWIEDLAND

The Co-operative Movement in Japan. By K. OGATA, Professor in the University of Commerce at Tokio. With a preface by SIDNEY WEBB. (London: P. S. King & Son. 1923. Pp. 362, in Octavo.)

THE essential feature of this big volume is the description of some old and widespread genuine Japanese forms of mutual assistance and economic communism. Similar associations, called *mujin* or *ko*, appeared seven or eight hundred years back, and before the Great War some 1,600,000 were in existence. Their members join temporarily for the purpose of mutual assistance in trade or in domestic economy, in arranging pilgrimages to temples or holiday trips, etc. They are local unions on a smaller or larger scale, mounting up to some hundreds of members and sometimes dissolving after a short time. Some have profit-seeking purposes (business mujins).

Another community, three-quarters of a century old, is the *hōtokusha*, devised by a simple peasant, Sontoka, who is highly respected and regarded almost as a saint. Besides money loans these groups facilitate the common buying and selling of goods, the drying of cocoons, the replanting of forests and so on. The Civil Code of 1896 granted them personality in law as well as public utility.

European forms of co-operation (co-operative productive societies excepted), were introduced by a special Law in 1899, which came into force in 1900, and since then the government has strongly encouraged such co-operative societies as effect loans, buy and sell, or work combined forms of such businesses. Four-fifths of the 14,000 co-operative societies (in the modern sense) existing in 1921 were Credit Associations. All of them enjoy legal advantages over trade companies and stand under public survey and control.

But they all are organisations implanted by authority from above, and have not naturally grown up from co-operative ideals, like their analogous forms in England, in Belgium, in Denmark, in Germany or in Italy, or even like the old Japanese friendly associations mentioned above.

EUGENE SCHWIEDLAND

NOTES AND MEMORANDA

The Agricultural Population and the Rental of Land

Prior to the institution of the census in 1801, there are only estimates of the population. Even the first census failed in its object, because the method of obtaining the information had not been determined by practice, and the general standard of education was so low that it was impossible to place any reliance upon the figures returned. This was particularly evident in respect of the occupational statistics. So far as agriculture was concerned, the census of 1831 states quite plainly that the failure of the question in 1801 " became manifest and worthless answers were entered without attempt at correction." It is only possible, therefore, to arrive at the agricultural population in 1811, and, since the number of families only is stated, it is necessary to use some figure as a multiplier in order to determine the number of persons. It was usual in the pamphlets of the day to estimate five persons to a family; if this figure is used, nearly four million people are shown to be employed in agriculture. This is a highly improbable result, particularly in view of the figure given in the 1841 census, which is only a million and a quarter. Some deduction must therefore be made from the 1811 figure, and it is, to say the least, unlikely that more than three million persons were engaged in the industry then. If that figure is taken, about 30 per cent. of the population were engaged in agriculture, whereas in 1911 only about 3·6 per cent. were so employed. The decline has not been uniform during the century, the number having risen between 1841–1851. It then consistently declined until 1901. At the next census a new system of enumeration was adopted, with the result that the 1911 figures show an increase. In this return is a table[1] stating the number of men and women over ten years of age, employed in agriculture in 1851 and at each decennial period thereafter. The total population at the date of each census is also stated in this return, and from these figures the percentage of population employed in agriculture can readily be calculated.

[1] General Report (Cd. 8491), p. 113.

The figures contained in the census returns are not strictly comparable, owing to the differences in the methods of enumeration employed. Many attempts have been made to weight the various returns so as to render them perfect, but these efforts must be received with reserve. It is necessary to accept what is to hand, and it has seemed best to take the figures published in the tables appearing in the 1911 General Report.

It is reasonable to assume that the profits of any national industry compared with the total income of the nation bear some relation to the percentage of the total population employed in that industry. A large number of economists have tried to formulate estimates of the total national income, but nothing satisfactory has yet been produced. The investigator is, therefore, forced to accept the income assessed to income tax for the purposes of calculations, and here again difficulties are encountered. Different bases of assessment were adopted at different times, and there is a hiatus from 1815–1842, when income tax was not levied. It does not seem possible, therefore, to do more than compare the rent of land assessed to income tax and the total income assessed. It is not desirable to carry the investigation into the "war period," as numerous changes were instituted, and the inflation and deflation of the currency introduced factors at present incalculable. So far as can be estimated from the only figures available, the rent of agricultural land in 1811 was about 20 per cent. of the total income assessed to income tax. During the century this proportion steadily declined, and in 1911 it was about 3·8 per cent. of the total. These percentages are not absolutely comparable, since the classification of income has been changed, and the later period contains elements not included in the earlier. These are not, however, very large, and do not make a really significant difference in the annual percentage.

The argument that the percentage of population engaged in agriculture and the proportionate annual income derived from the rent of land are related, is to some extent substantiated by an examination of these figures. If the percentage of population in England engaged in agriculture, and the percentage of income derived immediately prior to the war are examined, the first is found to be 3·6 per cent. and the second 3·8 per cent.

At the same time there had been an absolute decline in the number of persons engaged in agriculture, which cannot be stated exactly, but probably amounted to at least 50 per cent., if not slightly more. Although some land not used for agricultural purposes at the time of Couling's survey in 1827 may have been

brought into productive use by sheep and cattle farming, it is improbable that the total area of agricultural land has altered very much, in spite of the variation in the corn acreage, which clearly shows that the whole area has not been consistently used for a uniform purpose. The diminution of the agricultural population merely indicates that less labour is being put into the land. Some account must, however, be taken of the improvement in mechanical appliances and the progress of science. Since agricultural rents, contrary to the agricultural population, absolutely increased in amount, although only slightly, the annual produce of agriculture must have increased, or it would not be possible to derive an enhanced rent from the land. The position of the agricultural landowner has thus improved during the century, in spite of the decline in number of agricultural labourers and the actual decline of the industry as a proportion of the total industrial undertakings of the country.

Apart from this absolute increment which has accrued to the landlords from the agricultural industry itself, there has been an increment from each of several other sources, and, although that has no immediate reference to the present subject, some indication of its nature may not be inappropriate. The most obvious is derived from house property. The rent of houses assessed to income tax rose from not quite 14 millions [1] in 1811 to 196,300,000 a century later. As a percentage of the total income, it has risen from just under 9 per cent. to about 20·5 per cent., while the population itself has only increased from 10 millions to 36 millions. The increment in rent may be derived from two sources: first, an actual increase in the number of houses, and second, from an absolute increase in the rent of each house; both these factors have influenced this figure, and it is quite clear, from the ratio between the increment in house rent and the increment in population, that the value of house property has increased about four times as rapidly as the population.

The fact that the total income assessed to income tax rose from about 155 millions [1] to about 948 millions [1] during one hundred years shows to what extent the industrial undertakings of the country have enhanced the annual income. The total income has thus increased about 600 per cent. This, however, bears but little relation to the activities of the agricultural land-

[1] These figures are not those of an isolated year, but are the average, so far as that can be obtained, for the ten-year periods 1807–16, 37–46, 47–56, etc., grouped about each decennial census. They are taken from official publications.

owner, whose position is at least on a parity with that of his ancestors. Although the assessed rental of agricultural land is very little greater than it was one hundred years ago, it is now almost identical, in its relation to the total assessed income of the country, with the percentage of population employed in the industry.

Table showing Relation of Number of Persons employed in Agriculture to Total Population and Average Rental of Land and Houses for each Decennial Period in relation to Average Total Income assessed.

Year.	Total Population.	No. of Persons employed in Agriculture.	Ten years' average of Total Income assessed to tax.	Ten years' average of Rent of Land assessed to tax.	Ten years' average of Rent of Houses assessed to tax.
			£	£	£
1811	10,164,256	{2,310,597 [1] {3,850,995	154,778,021	31,860,906 [4]	13,900,382 [4]
1841	15,914,148	1,257,238	224,087,706	40,696,877 [5]	36,066,045 [5]
1851	17,927,609	1,712,739 [2]	242,083,767	41,641,865 [6]	41,259,412 [6]
1861	20,066,224	1,655,178	297,413,304	43,922,730	52,141,242
1871	22,712,266	1,456,971	415,980,596	48,691,158	74,731,143
1881	25,974,439	1,352,389	505,392,243	49,971,729	103,642,372
1891	29,002,525	1,284,981	580,890,069	41,634,276	125,664,100
1901	32,527,843	1,191,967	718,199,781	37,195,470	160,314,734
1911	36,070,492	1,291,828 [3]	948,372,989	36,662,682	196,336,423

[1] The census for this year gives number of families only, and, as was then usual, the figure has been multiplied by five and, alternatively, by three.

[2] Number of persons over ten years of age, and so for each census to 1911.

[3] Increase partly due to amended instructions and consequent more accurate returns.

[4] The average in this case is one of six years only, as no official figures can be discovered for the earlier years.

[5] The average in this case is one of two years only.

[6] The average in this case is one of seven years only.

N.B.—The average total income has been taken for the same years as the rents, and consequently is for the same number of years in each of these three cases.

G. E. FUSSELL

THE BEGINNINGS OF THE LIVERPOOL COTTON TRADE

IN a previous article (ECONOMIC JOURNAL, Vol. XXXIII. pp. 362–373) the recorded beginnings of the Liverpool cotton trade were carried back to 1735. The present addendum is intended to adduce fresh evidence which relates to a period even thirty years earlier. The interest of this is not to be found in the mere prosaic business of attaching a date-label to a particular

phase of commercial development, but rather in the fact of these early signs of an interdependence, often overlooked, yet of prime importance in regard to the manufacturing changes of the eighteenth century, between the commercial emporium and its industrial hinterland.

The triangular trade of 1735 between Liverpool, Africa and the West Indies has already been described, and it was previously suggested that such trade might have been in existence after the gradual relaxing of the African Company's privileges, a process which apparently became more clearly marked after 1730. Support was given to this suggestion from the accounts of the commencement of the Liverpool slave trade, given by local historians: [1] in 1730 fifteen ships were despatched, whereas before 1730 only a single small venture in 1709, on the part of a barque of 30 tons, is recorded. The African trade, however, had been opened in 1698 to those who paid certain duties to the Company, and there are now indications [2] that Liverpool ships were taking some part in the trade in 1700 and 1701, perhaps in accordance with the conditions offered, perhaps as mere interlopers. The latter is the more probable, and may account for the absence of direct evidence.

The ships which sailed in those years were specially instructed to bring home sugar and cotton from the West Indies. During the succeeding two years cotton was certainly received and marketed at Liverpool, but whether as the product of the triangular trade, or of a direct trade with the West Indies, does not appear. What was probably a typical consignment is described in a letter of 1703: " 102 hhds Sug^{r} . . . . 19 baggs cotten & 10 tuns logwood as also some matters on all yo^{r} privat adventures." [3] It is unfortunate that this excerpt and those that follow are taken simply from the letters received by one merchant from the three or four others who were concerned with him in his ventures, and that, therefore, though they give a fragmentary outline of the course of trade, they give no indication of its volume.

A letter of 1702 tells that " y^{e} Cotton men not yet come to town to pay their money," [4] and the custom seems to have been

[1] Cf. T. Baines, *History of the Commerce and Town of Liverpool* (1852), p. 694; J. A. Picton, *Memorials of Liverpool* (1875), i. p. 193.

[2] *Norris Papers*, ii. 567. The Norris MS. are best known from the selection of the more interesting letters contained in the ninth volume of the publications of the Chetham Society (Old Series). The present quotations, however, are from some of the unpublished letters which have been hitherto passed over.

[3] *Ibid.*, ii. 264. [4] *Ibid.*, i. 182.

for the Manchester manufacturers to come to Liverpool and make their purchases direct. It was not a business lightly to be undertaken. Even seventy years later, when coaches were running, the journey took nine hours, and manufacturers travelled one day, supplied themselves with cotton on the next, and returned to Manchester on the third day.[1]

The century whose close saw the dominance of an established Liverpool market saw also, at its beginning, the existence of the clumsiest conditions of buying and selling. The method of bargaining was crude, and the Liverpool merchants were evidently more accustomed to the handling of tobacco—then regarded as the staple import—and sugar than of cotton. In illustration, a letter of 1703, relating to a sale of water-packed cotton, may be quoted: "I have sold about 10^{c} [cwt.] of Dam[aged] Cotton at 7^{d} p. lb. you'l say a poore price one of y^{e} baggs w^{ch} was about y^{e} bulk of ½ a pack of Tobacco weighed 3^{c} 2q^{rs} it was not worth 1^{d} per lb had it come clear of Damadge Mr Tayler would have given 12^{d} p.lb."[2] Since cotton was reported to be 10*d.* per lb. in the West Indies during the earlier part of the year, it was not a very promising trade.

A letter from Mr. Edward Byrom[3] of Manchester shows the reverse side of a similar bargain, made earlier in the year: "Yesternight I returned from London to find yr^{s} of 6 Aug Noting you Draw on mee for thirteen pounds . . . & that for the rest we shall agree amicably. I hope so too & the reason is so great on my part it strange to mee Merch^{ts} of such honnor as y^{r} Partners are should need Persuasion to do a thing of that Reason & Equity truth is I have already paid you for more Neat Cotton than ever I rec^{d} & this 13^{ll} is in great part for tare & Damaged Cotton of no account to mee." The postscript which follows is of special interest: "I Presume you are satisfyed it is the Custom in London to alow 10 p.ct upon Cernes & in yr Bill Is but 4 & afterwards you but counted it 6 p.ct to mee So judge you the matter."[4]

"Cerne"—literally "circle"—must here be used in the sense of "covering" or "binding," and it may be a reasonable assumption that an allowance "upon cernes" is simply another expression for "tare." If the statement be correct that the London

[1] L. H. Grindon, *Manchester Banks and Bankers*, p. 13.

[2] *Norris Papers*, ii. 289.

[3] It seems not unlikely that this was the same Edward Byrom who was a member of the famous Manchester family of merchants and linen-drapers, and was the father of John Byrom the poet.

[4] *Ibid.*, i. 227.

allowance was ten per cent., it seems excessive and over-generous; an allowance of four per cent. was probably more reasonable if the customary rate of tare was to correspond with the actual tare. On the other hand, it is unlikely that there was at that time much uniformity in the materials and methods employed in bagging the cotton. Postlethwayt's Dictionary (1766) declares that "the tare abated in the Antilles is three in the 100."

There is no further evidence of the Liverpool custom until the end of the century; an examination of some existing account-books of that time shows that then Liverpool brokers made allowance at the rate of one in twenty-eight. The maintenance of such a ratio depended chiefly upon its admirable simplicity: the gross weight of the consignment—less the "draft allowance" of one lb. per bag—was translated into quarters avoirdupois, and abatement made at the rate of one lb. for each quarter.

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CURRENCY AND BANK CREDIT

IT is highly interesting to readers of the ECONOMIC JOURNAL to have before them the views of Prof. Cannan and Mr. Keynes on an acute problem of the day; and disconcerting to find that while—as might be expected from the high standing of the controversialists—there is nothing one would venture to describe as incorrect in either article, they lead to contradictory conclusions. May I, with due diffidence, offer a contribution which, starting from a different point, seems to suggest a partial reconciliation?

The point of departure is to ask, What are the dangers from which we have to protect ourselves? Are we thinking of an indefinite inflation such as that which took place in Germany; or that which France is now endeavouring, with doubtful success, to avoid? or of an exaggerated and disastrous trade boom such as that of 1919–20? or are we thinking of plans to minimise the disturbance due to trade cycles of the moderate character known to the nineteenth century? The intimate correlation between bank credit and the supply of cash is not in dispute; it is rather a question of initiative, and perhaps the question in the minds of the two writers is not quite the same, on account of the practical application which is subconsciously present to each of them.

If we were afraid that the British Government would embark on a career of extravagance, and finance itself by the use of the

printing press, it is just possible that the conservatism of the financial world might put up an effective barrier. It is, of course, more likely that the usual consequences, artificial stimulation of business, and sham prosperity, would follow; but just as the Federal Reserve Board has carried on a policy of keeping the "money-spending power" of America from rising in proportion to the stock of gold in that country, so it is conceivable that the Bank of England, and the commercial banks, by a severe limitation of credit, might restrict the consequences of governmental over-issue of paper money, at least if the inflation did not go too far. In this case ought we not to say that it is the total stock of means of payment, three-quarters of which is in the form of bank credit, that controls the level of prices?

But let us take another and more likely contingency. Recently the dockers struck for higher wages; the employers conceded this after a slight resistance, and promptly raised their charges to meet the cost. Then the London tramway men struck, and their demands having been conceded, a rise in tram fares will no doubt follow. If the same happens all round, the rise in prices will cause a demand for loans that the banks will be unable to resist, even if they wished to. They will, let us say, allow Treasury bills to run off, in order to secure more legal tender.

Is the Government going to insist on the Cunliffe limit? It is not likely that the chairmen of the Big Five will be called upon to come with candles and white robes to do penance before the Financial Secretary: it is more likely that they will be applauded for their efforts to keep a trade revival. A new competition between rising wages and rising prices like that of 1919–20 may set in. If the gold standard were in use, this vicious inflation would soon be stopped; in the absence of that safeguard, the best we can hope for is that the common sense of the Government and country will recognise in time whither the movement is leading, and will maintain a limitation of legal tender strict enough to check the inflation setting in from the side of commerce.

In this case we may reasonably say that the supply of legal tender currency is the important factor in the situation.

Mr. Keynes does well to stress the fact that a demand for legal tender springs up as a result of contracts already entered into, and so is a late feature in the trade cycle. To impose an absolute limit to the supply of legal tender might easily create a crisis; half a century ago crises due to inelasticity of money supply in a gold-using system had to be met by suspending the Bank Charter Act, *i.e.* by removing the rigid limit. Undoubtedly, if

our currency system is to be regulated consciously, it must be in accordance with all the economic circumstances, and not by a simple fixed rule. At the same time we might remember that the gold standard *did* work, and fairly well, although it is much harder to get new supplies of gold in an emergency than to persuade Government to rescind a Treasury minute.

R. A. LEHFELDT

Johannesburg,
April 1924.

THE TENTH ANNUAL REPORT OF THE FEDERAL RESERVE BOARD

AMONG the many contrasts presented by the authorities respectively responsible for credit policy in this country and the United States, none is more marked than that between the reticence of the Bank of England and the communicativeness of the Federal Reserve Board. Either attitude has much to recommend it, but that of the Federal Reserve Board undoubtedly presents the greater advantages to the student of monetary theory.

In this Report the Board takes the public more fully into its confidence than ever before. The Report deals ostensibly with the year 1923, but it refers freely to the proceedings of 1922 and preceding years.

Anyone who has studied the weekly returns of the Federal Reserve Banks in recent years will be aware that the most striking movements have been those in the distribution of earning assets between rediscounts and open market assets. The fundamental difference between these two classes of assets is that the rediscounts are brought to the Federal Reserve Banks by the member banks on their own initiative, in order to maintain their statutory reserve proportions, whereas the others are composed of bank acceptances or Government securities bought on the initiative of the Federal Reserve Banks themselves. Every asset is balanced by a liability. When the Federal Reserve Banks buy open market assets, their liabilities, whether notes or deposits, are increased by an equal amount; this represents an increase in the cash resources of the member banks, and enables them either to diminish their rediscounts or to create more credit. On the other hand, when the Federal Reserve Banks *sell* open market assets, they curtail the cash resources of the member banks and drive them either to contract credit or to replenish their reserves by rediscounting.

In 1922, as a result of a drastic contraction of credit and a great importation of gold, the earning assets of the Federal Reserve Banks had reached a low level. "Some of the reserve banks, in order to assure themselves of sufficient earnings to meet their expenses and their dividend requirements, began to purchase considerable amounts of short-term Treasury securities." In July 1922 the rate for commercial paper in New York fell fractionally below the rediscount rate; this development (which, however, is not itself mentioned in the Report) was evidence that the rediscount rate had ceased to be effective. It became clear that "open-market operations of individual reserve banks may not be reflected in changes in the demand for credit at these banks, but may influence the credit situation in the money centres where the purchases or sales are made." That is to say, if the Chicago reserve bank bought $1,000,000 of certificates of indebtedness in New York, it might pay for them by transferring $1,000,000 of gold to the New York reserve bank. The Chicago bank could then simply substitute earning assets for idle gold, while the New York bank would be saddled with the redundant gold and would find its control of credit weakened. It became evident that "open-market policy should be a system policy." The Board decided that open-market policy was to depend, like the rediscount rate itself, on the state of trade and on the general credit situation, and a committee of reserve bank officers was constituted to secure co-ordinated action.

The effects of this decision have been manifest in the interesting changes in open-market assets which occurred in 1923. At the beginning of the year prices were rising, and there was some fear of an excessive credit expansion. The New York rediscount rate was raised in February from 4 to 4½ per cent. So slight a rise (which only occurred in three out of the twelve reserve districts) was not likely by itself to have much influence. But concurrently with it came a systematic sale of open-market assets, which, for the system as a whole, fell from $712 millions to $270 millions at the minimum in the summer. The member banks were driven to make up the difference by rediscounting, and the rediscount rate thus reinforced became effective. Prices began to fall. In the autumn, when the danger of inflation had clearly passed and the seasonal stringency supervened, the banks began to increase their open-market assets again.

The experience has been highly encouraging to those who hope for an enlightened management of credit with a view to the stabilisation of prices in the future. Credit conditions have

been found (as so often) extremely sensitive. The danger of inflation was averted without any reaction worth mentioning. One or two industries have shown slight signs of slackening, but there have been none of the symptoms of a trade depression, and no general unemployment. The action of the reserve banks has been of the gentlest.

To all appearance this successful regulation of credit is still continuing. The only circumstance that threatens it is the gradual shrinkage of the earning assets as a whole. If gold imports arrive (as they recently have) at the rate of $300,000,000 a year, the earning assets will eventually fall so low that the power of the reserve banks to control credit, even if they cut down their open-market assets to nothing, will be impaired. It is perhaps hardly necessary to add that this development, involving a depreciation of the dollar and thus facilitating the return of sterling to par, would be welcomed by many authorities in this country. But that is no concern of the Federal Reserve Board's.

The concluding section of the Report is devoted to a discussion of the suggestion that credit "should be regulated with immediate reference to the price level, particularly in such manner as to avoid fluctuations of general prices." On this vital question the Report is very cautious. "The inter-relationship of prices and credit is too complex to admit of any simple statement, still less of a formula of invariable application." . . . "The price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes." To some advocates of price stabilisation this may be a little damping. But it is a grave mistake to claim too much for the index-number. A mechanical adherence to it is supported neither by practical experience nor by theory. "Credit administration must be cognisant of what is under way or in process in the movement of business before it is registered in the price index." It looks as if the Federal Reserve Board, in contrast with so many critics of the policy of stabilisation on this side of the Atlantic, had seen further into the practical problem of credit control than some of the theoretical supporters of that policy themselves.

On the other hand, the Report contains, it must be confessed, traces of some of those time-honoured fallacies from which practical bankers seem to be quite incapable of emancipating themselves. An example is the idea, so often taken as axiomatic,

that lending only becomes inflationary if it is for illegitimate purposes; "it is the non-productive use of credit that breeds unwarranted increase in the volume of credit." It may be very desirable for bankers to give a preference to bills and advances for the production and distribution of goods, but that is in itself no safeguard at all against inflation. Nor, for the matter of that, do finance bills, or advances for speculation in shares, in commodities, or in foreign exchange, or even advances to meet budget deficits, necessarily produce inflation, so long as the amount of credit created for all purposes, good, bad and indifferent, is kept within due bounds.

The writers of the Report also suffer under the delusion that the imports of gold into America are the result of the international balance of payments. "It is to be expected and desired," they say, "that some portion of the gold which the tides of disorganised trade have brought us in the past ten years will eventually return to the countries whence it has come." Apparently they have not yet learnt that they receive all this gold simply because they offer a higher price for it than any other country can afford to pay.

R. G. HAWTREY

NOTE ON THE REAL RATIO OF INTERNATIONAL INTERCHANGE

IN the ECONOMIC JOURNAL for December, Mr. Keynes restates his reasons for supposing that in the decade before the war the real ratio of international interchange was turning in favour of agricultural and against manufacturing countries, in such wise as to yield year by year a decreasing quantity of the products of the former to a given expenditure of effort in the latter. In *Economica* for February Sir William Beveridge gives his reasons for rejecting this view. In this controversy I do not intervene. My concern is with the second section of Mr. Keynes's article, in which, having admitted that after the war the ratio of interchange swung violently in England's favour, he proceeds—a raven not thus easily to be baulked of his croak—to draw disquieting inferences from this apparently encouraging fact. In brief, he suggests that "we are asking too much for our exports, and will have to ask less if we are to sell enough to pay for our necessary imports": in other words, that stable equilibrium in our trade can only be secured at the cost of a further reduction in real wages. I think this suggestion may correctly indicate the best policy which, in the circumstances, it is open to us to pursue;

but I think also that it is somewhat misleadingly phrased, and that its highly paradoxical nature deserves further comment.

The phrase "asking too much for our exports" seems to me to cloud the issue by suggesting that the price in question is an artificial one, out of accordance with the conditions of current demand and supply. It is by no means clear to me that this is the case. Let us take a simplified instance of the time-honoured kind. Anglia is exchanging cotton-goods for Transmarine wheat. As a result of good harvests Transmarina's demand schedule, in terms of wheat, for Anglian cotton-goods is raised throughout—the ratio of interchange alters in Anglia's favour. But Anglia's demand for wheat has, let us suppose, an elasticity less than one, with the result that Anglia, importing at least as much wheat as before, exports fewer cotton-goods. She is potentially richer than before, for she finds herself with a surplus of productive power, no longer required for obtaining imports but theoretically divertible into other uses. But in so far as that surplus is stereotyped in the form of cotton-stocks, cotton-mills and cotton operatives, those stocks will accumulate, those mills be idle, and those operatives unemployed: there will occur all the recognised symptoms of "trade depression." There are now two alternative policies for Anglia. She may attempt to convert her resources to other uses: or she may, in order to prevent distress among particular groups of capitalists and workpeople, deliberately degrade her standard of life below that to which the conditions of reciprocal international demand entitle her. Which policy she will be wise to adopt depends (like the wisdom of accepting an indemnity [1]) partly on the difficulty and expense of the process of conversion, and partly on how far the original alteration in the ratio of interchange may be expected to be permanent. But the second policy, if adopted, is at best a *pis aller*, and it is the new alteration thus effected in the ratio of interchange, not the original alteration, which is contrived and artificial.

This instance seems to represent fairly the essential features of the post-war slump in British trade. Agricultural production had continued relatively undisturbed: industrial production had been gravely dislocated, and its fruits were in keen demand for reconstruction and restocking purposes. The defection of the German and Russian markets compelled overseas agriculturists to force their wares on the rest of the world. Whether or no normally inelastic, our demand for raw produce became so in

[1] Cf. J. M. Keynes, *A Revision of the Treaty*, pp. 152 ff.

face of the great reductions in real price flung at our heads. So the Argentine, Indian and other oversea exchanges crashed: the grower of raw produce found himself deprived of his power to purchase our goods, and "depression" overtook our export trades. The improvement in the ratio of interchange, which should have been for our wealth, became unto us an occasion of falling.[2] The process is seen at work in the quarterly figures (extracted and calculated from the *Board of Trade Journal*) exhibited in Table I. Perhaps in 1921 it really went too far,

TABLE I

(*Corresponding period of* 1913 = 100)

	Average value of imports.	Average value of exports.	Average value of imports in terms of exports.	Volume of imports.	Volume of exports required to purchase actual volume of imports.	Actual volume of exports.
1919	240	277	87	88·4	76·6	54·9
1920–1	284	326	87	95·2	82·9	71·3
2	285	358	80	96·6	76·9	73·5
3	289	376	77	90·6	69·6	73·6
4	283	373	76	73·1	55·5	65·4
1921–1	220	334	66	71·3	47·0	53·5
2	192	283	68	75·5	51·2	38·4
3	182	241	76	78·6	59·4	46·4
4	170	226	75	72·3	54·4	60·7
1922–1	149	218	68	79·7	54·5	67·1
2	152	196	78	91·5	71·0	65·0
3	155	196	79	86·9	68·7	69·9
4	153	189	81	85·5	69·2	73·3
1923–1	146	196	74	95·3	71·0	74·4
2[1]	148	188	79	94·8	74·6	77·6
3[1]	151	192	79	88·8	69·8	68·7
4[1]	152	184	83	92·8	76·7	77·5
1924–1[1]	150	193	78	99·3	77·1	74·6

[1] Approximate correction made for exclusion of Irish Free State.

owing to the continued export of manufactured goods made out of materials bought at the higher price-level, and priced accordingly, and to the artificial paralysis of export by the coal-dispute. But it looks as though in 1922–24 something like a true equilibrium has been attained: though, of course, it is still open to any one to argue that this equilibrium is not likely to be permanent.

[2] Normally, as Mr. Keynes remarks, an improvement in the real ratio of interchange is associated with an industrial boom in this country (for further instances see my *Study of Industrial Fluctuation*, pp. 168 9). His inference that boom conditions are secured "at the expense of" agricultural countries is, I think, unfortunately phrased. If the lowered price of raw produce is due to the bounty of nature, *everybody* concerned may gain.

To this interpretation of recent history one obvious objection may be made. The argument of our simplified example requires that the volume of Anglia's *imports* shall not be diminished by the improvement in the ratio of interchange. Even if her demand for wheat is completely inelastic, she will not import *less* than she did before. But the volume of British imports is seen to have been less by one-ninth in 1919 and 1920 than in 1913, and by one-quarter in 1921 than in 1919 and 1920. Here indeed is an odd result of cheapening—that we should actually buy less of the cheapened thing! Must we conclude then after all that the post-war ratio of interchange is not a genuine register of a change in the conditions of reciprocal demand, but is in some manner spurious and uneconomic? I think not, for a reason which can best be made plain by another example. Let Anglia now import from Transmarina not only wheat but the raw cotton which she transforms into cotton-goods for export: thus the wheat is in effect payment for her manufacturing effort. Let there occur an alteration in her favour of the ratio of interchange. Her demand for wheat being inelastic, she will find it worth while to expend less cotton-manufacturing effort than before, and will therefore export fewer cotton-goods, and will therefore, in spite of its lowered real price, import less raw cotton. In the following numerical illustration, it is assumed that as a result of war the price of Anglia's imports, in terms of her own labour and of her own currency, is reduced by 20 per cent., and that her demand for wheat is completely inelastic. The item "wheat" may be taken to include cotton worked up by Anglia *for her own use*.

Imports (£ millions Anglian).		Exports (£ millions Anglian).	
(1) *Pre-war Trade.*			
Raw cotton	25	Cotton in goods	25
Wheat	20	Manufacturing effort	20
	45		45
(2) *Post-war Trade.*			
Raw cotton	16	Cotton in goods	16
Wheat	16	Manufacturing effort	16
	32		32
(3) *Post-war Trade at Pre-war Values.*			
Raw cotton	20	Cotton in goods	20
Wheat	20	Manufacturing effort	16
	40		36

The post-war position is seen to be one of real equilibrium, and essentially more favourable to Anglia than the pre-war position,

in spite of the diminished volume not only of exports but of imports.

This example suggests that our diagnosis of the essential nature of the post-war slump in British trade is not necessarily invalidated by the decline exhibited in Table I in the total volume of imports. It suggests too that we need not be unduly scared by Mr. Keynes's demonstration (ECONOMIC JOURNAL 1923, p. 482) that the aggregate of our manufactured exports would command (he says rather confusingly " are now buying ") 12 per cent. less food-stuffs than the aggregate of our manufactured exports before the war. It would be alarming indeed if we were in fact buying less food; but we are actually buying more.[1] (In the above example, Anglia's post-war total of manufactured exports would only command $\frac{8}{9}$ as much wheat as her pre-war total of manufactured exports: yet she is buying just as much wheat as before—it is her raw material imports which she has found it advisable to restrict.) Table II exhibits in more detail,

TABLE II

(*Corresponding period of* 1913 = 100)

	Retained Food Imports.		Retained Raw Material Imports.		Manufactured Exports.	
	Average value.	Volume.	Average value.	Volume.	Average value.	Volume.
1920–1	275	106	346	89	314	72
2	288	90	329	111	350	80
3	308	84	283	112	375	81
4	336	69	247	78	375	72
1921–1	246	92	181	62	344	55
2	216	99	150	66	298	40
3	183	88	186	64	251	46
4	181	84	174	58	234	62

from this point of view, the course of events in the critical years 1920–21.

The general conclusion is that if a country's resources in capital and labour were completely mobile between different occupations, an improvement in the ratio of interchange would be an unmixed blessing, even though it led to a reduction in the volume both of exports and imports. If we could costlessly erect a vast sausage-machine which would grind shipyards into cottages and cotton-

[1] One per cent. more, if we take a similar average of triennial averages to that from which Mr. Keynes derives his 12 per cent. figure: 14 per cent. more, if we compare 1923 directly with 1913, itself a year of maximum.

spinners into plasterers, we should be wise to do so. I am not sure that even as it is we ought not, so far as labour is concerned, to take a leaf out of Germany's book, and make a far more decisive move in that direction than we have yet done. But if the difficulties are too formidable, or if we take the view that the present situation is too transitory to make the attempt worth while, we may have in practice to fall back on the expedient advocated by Mr. Keynes—a contrived fall in the ratio of interchange, just as it may be right in certain circumstances to break windows in order to save glaziers from starvation. There is indeed a third alternative, to which we have already had some recourse—an artificial stimulation of the export of goods on credit, that is, of foreign investment. I do not gather that Mr. Keynes sets much store by this;[1] but it seems more sensible to get something for our goods, even if only bits of South American paper, than in effect to give some of them away, by selling them cheaper than we need.

To sum up, we are buying adequate food for our growing population, paying £30 millions a year interest to the United States, and sending abroad £100 millions worth a year of new savings sorely needed at home; and still we have a surplus of export-producing power. I do not know whether Mr. Baldwin had these considerations in mind when, to the bewilderment of friend and foe, he advocated a restriction of exports; but I think he might have had.

D. H. Robertson

Note on the above

Mr. Robertson's analysis makes the whole matter much clearer. But I should like to add that my pessimistic doubts always proceeded from the prior doubt whether the recent relation of export prices to import prices could be expected to last. If we can look forward permanently to buying as much food and raw materials as we require at a price 22 per cent. cheaper in terms of exports than before the war, plainly this is nothing to grumble at. But I do not understand what permanent change in our favour can have produced this fortunate result. Two temporary causes, on the other hand, are obvious: (1) the Armistice found the whole world starved of its normal supplies of manufactured goods—a shortage most of which is already worked off; and (2) our principal pre-war rival, Germany, has

[1] See his exposure of the disadvantage of Protection from this point of view, *The Nation*, Nov. 24, 1923.

been more or less *hors de combat.* I should suppose that most of our staple exports could be produced in future by Germany cheaper than 22 per cent. above British pre-war real costs; at any rate it is now proposed that we should compel her, under heavy penalties, to do her utmost to undercut us.

I sympathise, however, with Mr. Robertson's concluding suggestion—which seems to have much in its favour, whether on his hypothesis or on mine—that the solution does not lie in pushing the volume of our export trade by lowering our prices, but rather in diverting capital and labour out of the export industries where they are now redundant. In so far as we can do this, I believe that we should do well to curtail still further the volume of our exports (and, proportionately, the volume of our new foreign investments), directing the labour and resources into capital construction at home. In any case this may be forced on us, as soon as German competition is in full blast.

J. M. KEYNES

RECENT OFFICIAL PUBLICATIONS

Report on the Administration of the Trade Board Acts from 1st January, 1922 to 31st March, 1923. (Ministry of Labour.) 1923. Price 6*d.*

THE Acts were not applied to any fresh trade during the period and no fresh Trade Board was formed. The number of Trades under the Acts is 37, the number of Trade Boards 44. There was a continuous reduction in Trade Board rates. Eight Boards adopted "sliding scales" based on the "Cost of Living" figure published in the *Labour Gazette.*

Report on an Investigation into the Personal Circumstances and Industrial History of 10,000 *Claimants to Unemployment Benefit, November 5th—10th,* 1923. (Ministry of Labour.) 1924. Price 3*s.*

INFERENCES may be safely drawn from this sample, though it is but a hundredth part of the whole class; since great care was taken in the formation of the sample in random fashion, and since it has been verified by its correspondence with a less detailed enquiry covering a third part of the total. Of the males observed 66·5 per cent. and of the females (usually much younger than the males) 73·5 per cent. were persons who in normal times would usually be in steady employment. Only 3·6 per cent. of the

males and 2 per cent. of the females were placed in the class described as "verging on the unemployable." Half the male claimants and four-fifths of the females were under 35 years of age. Two-fifths of the men and two-thirds of the women were single. Many other inferences interesting both to economists and to officials are drawn from the sample.

Report on the Present Position in the Building Industry. [Cmd. 2104.] 1924. Price 9*d*.

THE report was prepared by a Committee representative of Employers and operatives formed at the request of the Ministers of Health and Labour. The Committee insist on the necessity of a definite and continuous programme extending over fifteen years; during which period 2,500,000 houses are to be erected. Suggestions are made for the augmentation of labour in the building industry, and in the industries which supply the materials. There is appended a report on the available supplies of materials, prepared by a Committee of Building Manufacturers and Suppliers.

Report from the Select Committee on Betting Duty. 1924. Price 6*d*.

THE present state of the law is shown to be anomalous. The rich man can bet on credit through an office with impunity; but the poor man who has to bet in a public place is liable to punishment as a criminal. The public, however, do not assist the police in carrying out the law. Many of the methods of betting which are described in the report are devised to evade the law. The Committee agree with the Chairman's draft report in holding that the imposition of a duty on betting is practicable; but, deterred by the impending dissolution of Parliament, they do not consider the scheme which he proposes.

Income Tax in the British Dominions Supplement No. 1. 1924. Price 1*s*.

THIS supplement to the recent report on "Income Taxes in the British Dominions" consists of two parts, a series of pages in continuance of that Report, and a set of additions and corrections to be incorporated in the text.

The prices named above are all "net," postage being extra. Copies of the documents may be obtained from Imperial House, Kingsway, London.

Current Topics

The Annual Meeting of the Society was held on April 14 under the chairmanship of Lord Milner, when the accounts of the previous year were received and the Council and officers appointed for the present year. During 1923 the net addition to the membership of the Society was 200, and the surplus of income over expenditure was £721 (details of the accounts of the year have been circulated to Fellows). Professor Edgeworth was elected a Vice-President of the Society.

The Secretary announced the forthcoming publication by the Society of Professor Edgeworth's Collected Works, so far as they relate to Economics, in three volumes (super royal octavo), and also of an abridged translation of Professor Knapp's *State Theory of Money*, which has been prepared under the supervision of Dr. Bonar. Particulars of these publications will be forwarded shortly to Fellows of the Society, to whom they will be offered on special terms. The Council much hope that Fellows will see their way to support this experiment, so that these publications may become the first of a series.

The death of Edmund Byron Walker removes a notable figure from Canadian life. A banker all his days and in his later years controller of one of Canada's greatest banks, the Canadian Bank of Commerce, he made his influence felt beyond banking and finance, in the Universities, in history, in the Fine Arts, in music. He knew his own country from end to end, and his experience of currency changes in the States during the Civil War served Canada in good stead on Confederation in 1867. He was capable of broad general views ; and as a financial oracle he was to Canada what Giffen, Goschen, and after them Holden, McKenna, and Schuster have been to ourselves. He was born in Ontario in 1848 and died at Toronto on March 27 of this year.

The issues of the Economic Journal for September 1914, December 1915, March 1917, March and June 1918, March, June and September 1919 and March 1920 are now out of print. As a few additional copies are required for the purpose of completing sets, the Secretary of the Royal Economic Society would be much obliged if any Fellows who can spare their copies of these issues would return them to the Assistant Secretary, Mr.

S. J. Buttress, 6 Humberstone Road, Cambridge. A payment of *5s.* will be made for each copy so returned.

The Society has for disposal a set of the ECONOMIC JOURNAL (1891–1923) complete but for Part I of Vol. I, which is out of print. It is bound in the Society's cover. Particulars on application to the Assistant Secretary as above.

THE following have been elected to membership of the Royal Economic Society:

Abraham, J. S.
Agarwalla, Prof. M. L.
Alexander, Capt. B.
Allan, D. H.
Allen, S.
Armstrong, Miss F. A.
Aspinall, I. G.
Austen, H. H.
Back, W. J.
Baker, W. M.
Banister, R. F. H.
Barna, K. L.
Barrett, C. C. C.
Beevers, C. E.
Berditchevsky, A.
Blacktin, S. C.
Brown, H. A.
Bull, A. J.
Bullough, H. A.
Busteed, Prof. J.
Button, H., C.B.E.
Buxton, S. W.
Charnley, R.
Chipchase, C.
Coles, A. H.
Collins, O.
Comins, C., J.P.
Cooper, H. S.
Clark, W. B.
Critchley, H. S.
Currie, Miss J. N. R.
Darling, J. F., C.B.E.
Davidson, J. H. W.
Davis, F. R. E.
de Sahmen, C.
Dibblee, G. B.
Dickens, G. W. W.
Dickson, J.
Douglas, C. M.
Dowling, S. W.
Downie, E. J.
Dyson, A. E.
Firth, Raymond W.
Fisher, F. V.
FitzGerald, M. O.
Foster, Prof. M. B.
Frampton, R.
Gersaglia, R.
Gibson, W., junr.
Godfrey, E. M.
Gray, J. L.
Griffiths, R. H.
Hallas, E. I.
Hammond, J. L. LeB.
Harding, F. D. M.
Harris, W. L. G.
Harvey, G. E.
Higgison, F. W.
Hildebrand, Prof. Charles, LL.D.
Holt, L. W.
Hyams, Maurice
Hytten, T.
Ibbotson, G. F.
Isaacson, P. de St.
Iyengar, Prof. S. K
Jenkins, G. H.
Johnson, G. L.
Jolly, B. M.
Jolly, J. H.
Jones, E. F.
Judson, H.
Krishna, L. M.
Leake, P. D.
Leggat, James
Lennox, J. W.
Lewin, W. H.
Lock, D. R.
McCallum, E. D.
Mackay, A. L. G.
McKenzie, J. McP.
Markwick, T. H.
Marshall, T. H.
Martin, J. W.
Max, William D.
Mayor, F. W. J.
Mayrisch, Mdlle. A.
Meeson, H.
Merz, N.
Mitchell, F. J.
Morris, W. H.
Nash, F. J.
Norman, A. R.
Oldroyd, W.
Ormsby, G. V.
Osborn, C. S.
Page, J. L.
Palmer, E. H.
Park, J.
Pedley, M. R.

Pender, A. B.
Phillips, F.
Pitt, F. A.
Plant, Prof. Arnold
Raymond, C. J.
Robinson, E. A. G.
Robson, N. H.
Robinson, W., junr.
Ryan, W.
Sabnis, Prof. Rajaram P.
Salveson, Harold K.
Son, B. R.
Shepherd, N.
Singh, Dalip.
Skillicorn, Miss A H.
Stirling, J. M.
Stoneley, M.
Summers, S.
Tamhankar, Prof. V. V.
Teesdale, E.
Tozer, E. N.
Tugendhat, Dr. G.
Van Nierop, H. A.
Vernon, Lord
Wadhwani, Prof. W. V.
Waller, A. G.
Walter, F. P.
White, J. F.
Witt, H. T.
Williams, Arnold, M.P.
Williams, A.
Williamson, W. W.
Wilson, G. D., O.B.E.
Wood, F.
Wood, G. L.
Wood, J.

The following have been elected to library membership:—Geneva University Library; Statsokonomisk Forening, Kristiania; Statsokonomisk Lesoverelse, Kristiania; Research Department, Union of Post Office Workers; Biblioteca de la Facultad de Ciencias Economicas, Buenos Ayres.

The following have compounded for life membership:—

Firth, Raymond W.
Hildebrand, Prof. Charles, LL.D.
Hyams, Maurice
Leggat, James
Max, William D.
Mohan, Prof. S.
Plant, Prof. Arnold
Rhodes, Miss D. E.
Sabnis, Prof. Rajaram P.
Salvesen, Harold K.
Springer, L.
Stuart, T.
Vernon, Lord
Williams, Arnold, M.P.

We are asked to insert the following:

The International Association for Labour Legislation has convened an International Congress on Social Problems which will be held at Prague from October 2–5, 1924. A similar Congress which was held in Zurich in 1897 proved a real turning-point for continental labour legislation. The organisers of the Prague Congress wish now, therefore, to offer an opportunity to all friends of social reform to formulate an international programme intended to realise the promises of the Peace Treaty to the working classes with regard to hours of employment, to increase the feeling of collective responsibility for production among the organised workers, and to formulate an international policy against unemployment. The Congress will be held in

the building of the Czecho-slovakian Parliament; at the opening sitting a review of social legislation since 1897 will be given by speakers of different nationalities. The first item on the agenda is the eight-hours day; the second the worker's responsibility and his share in the technical, economical and social administration of industry; the third the tasks of society with regard to the prevention of industrial crises, and especially of unemployment.

The executive committee for the Prague Congress, to which representatives of the International Association against Unemployment have been added, are actively preparing for the Prague meeting and for the submission to it of international and national reports. The fee for admission is six shillings for individuals, sixteen shillings for associations. Railways in Czecho-slovakia will charge delegates half of the usual fares; visas for passports will be free of charge to those who present an official card of identity.

It will be remembered that the International Association for Labour Legislation is a non-partisan body supported in the various countries by members of all political parties. Its General Secretary, Prof. Stephen Bauer, F.E.S., is a well-known expert on the subject of Labour Legislation. The International Congress is intended to be equally catholic in aim and constitution. All the speakers who will deliver addresses are authorities on the subjects with which they will deal. These speakers include Mr. Seebohm Rowntree—England; ex-Chancellor Renner—Austria; Professor Mahaim—Belgium; Justin Godart and Albert Thomas—France; Cabrini and Angelo Mauri—Italy; Mrs. Kjelsberg and Mr. Jarye—Norway and Sweden; Dr. Andrews and Mr. Dennison—U.S.A.

Economists and friends of social reform in Great Britain intending to visit the Congress are requested to intimate their intention to the Hon. Secretary of the British Committee: Lady IDA S. A. HALL, 21 Hanover House, Regent's Park, London.

AN Indian correspondent writes:

Bombay was the place of meeting in January (22nd to 25th), of the Seventh Indian Economic Conference. This is an Annual Meeting of Economists and those interested in economic problems from all parts of India, including many of the Native States. The members of the Association now total 128, and include representatives from all the University centres throughout India. The attendance was larger this year than it was last.

A number of Indian ladies were in constant attendance and took a deep interest in the proceedings; amongst them was Miss Mitham Tata of the famous Tata family of Bombay, an M.A. of the Bombay University, who has also taken the M.Sc. degree in the London School of Economics, and is qualified as a Barrister-at-Law, being the first lady lawyer in Bombay, before whose Courts she has lately secured permission to appear.

The Conference was most fortunate in securing Sir Leslie Wilson, the new Governor of Bombay, within a few days of assuming office, formally to open the proceedings.

In the absence of Prof. V. G. Kale, who is working on the Report of the Tariff Board, Sir M. Visveshvaroya, the former popular and efficient Diwan of Mysore, was voted to the President's chair, and delivered a much appreciated address on the subject of "Ignorance and Poverty and some means of amelioration." His main thesis was expressed in this statement: "The inference must be plain to you all now that a change in the present economic structure, which is old and out of date, is overdue and that in future a permanent union between Great Britain and India should be promoted and maintained on the basis of mutual benefit and healthy common interests."

The papers that called forth the greatest amount of interest and discussion on the first day of the Conference were: *British Imperial Economic Relations*, by A. J. Saunders, American College, Madura, and *The Tariff Board and Indian States*, by Sirdar M. V. Kibe, Indore State. The first paper dealt with the thesis that the British Imperial Economic policy has not kept pace with our political policy. There must be worked out an economic relationship that will be able to conserve the interests of both the Empire and the individual nation. The second paper raised the issue of double taxation under which the people of the Native States are suffering. It also emphasised the need of reconsidering the whole question of both political and economic relationships between the Indian Government and the Native States.

The morning session of the second day was devoted to the question of Indian Monetary Problems, and the following papers called forth a lively discussion: *The Government of India and its Currency Policy*, by Profs. P. A. Wadia and G. N. Joshi, Wilson College, Bombay; *A Comparative Study of the Gold Exchange Standard during and after the War*, by Prof. B. R. Chatterjee, Khalsa College, Amritsar; and *The Gold Exchange Standard of India*, by Mr. T. J. Kumaroswami. The debate turned on the

question—is gold really needed for currency, or would it not be better simply to reserve it for financing foreign trade?

In the afternoon "Co-operative Societies" was the subject for consideration. Able papers were presented by Mr. J. A. Madan, I.C.S. Registrar, Co-operative Societies, Bombay Presidency, on *Non-Credit Agricultural Co-operation in India;* and by Prof. H. L. Kaji, Sydenham College of Commerce and Economics, Bombay, on *Distributive Co-operative Societies in India.* In the discussion which followed Dr. John Matthai of Madras contributed a fine speech from the view-point of the experiences of the Department in the Madras Presidency, and Prof. Miles called attention to excellent work at Lahore, especially in connection with redistribution of land holdings.

Prof. C. J. Hamilton, of Patna University, opened the proceedings on the third day with a well-thought-out study of *The Population Problem in India.* He sees a very close relationship between poverty and India's vast and growing population. Indian opinion as expressed at the Conference in the discussion which followed is not inclined to that view. Prof. R. M. Joshi of the Sydenham College of Commerce, Bombay, followed with a paper on *Agricultural versus Industrial Development in India.* This paper occasioned a very interesting debate. A paper which was highly commended was *Agricultural Improvements in India,* by P. Basu, of Holkar College, Indore.

The papers on the last day of the Conference were: *Excise Policy in South India,* by Dr. John Matthai of Madras; *Indigenous Banking in the Madras Presidency,* by T. K. Duraiswami Aiyar also of Madras, and *India's Real Balance of Trade in 1922-23,* by G. Findlay Shirras, Director, Labour Office, Bombay. It is needless to say that these papers were well received, and resulted in a helpful discussion. Mr. Shirras' study created great interest not only in the Conference, but also among many of the leading business men in Bombay.

A number of very interesting and much appreciated social functions were organised in connection with the Conference by the Reception Committee. Visits of inspection were made to the Sir Currimbhoy Ebrahim Workmen's Institute, and the Bombay Workingmen's Institute, under the direction of the Social Service League. There was an At Home at the Sydenham College of Commerce and Economics. And a trip was made down the Harbour and a visit to the Cotton Green, Sewri, by steam launch from the Ballard Pier.

RECENT PERIODICALS AND NEW BOOKS

Economica.

FEBRUARY, 1924. *Mr. Keynes' Evidence for Over-population.* SIR WILLIAM BEVERIDGE. "There is no positive evidence at all to support Mr. Keynes' views . . . there is strong, if not conclusive, evidence negating them; so far as can be seen, material progress in Europe continued to the eve of war at a hardly diminished rate." *"Total Utility" and "Consumer's Surplus."* Marshall's conception of "Consumer's Surplus" is severely criticised. It does not apply to satisfactions afforded by compliance with fashion; nor to the use of substitutes, as of a neighbouring bridge which dispenses with the necessity of recourse to one at a distance—"if the further bridge falls down the total utility of the nearer bridge and the consumer's surplus of satisfaction which he derives from it must suddenly rise." People have been confused by misleading "space representations." *The Entrepreneur Myth.* M. H. DOBB. Referring to Usher's *Industrial History of England* and to the Cambridge "Neo-Classicists," the writer argues that "the entrepreneur of the pure theory . . . is merely an algebraic symbol." There is no reason to suppose that the needs of a differentiated society for an integrating force could not be satisfied in other ways, were social conditions different.

Journal of the Royal Statistical Society.

JANUARY, 1924. *The International Statistical Institute and its Fifteenth Session.* SIR J. A. BAINES. *Agricultural Production in Denmark.* HARALD FABER. The production of food is set forth under several heads, *milk, eggs, wheat,* etc.; the number of persons fed on 100 acres of cultivated land in Denmark is calculated to be 54; and an estimate is made of the proportion of the production due to the importation of food for live-stock. Sir Henry Rew remarked that the main causes of Denmark's success were an enlightened system of education and organisation for export trade. *Some Experiments on the Goodness of Fit.* J. BROWNLEE, M.D., D.Sc.

Edinburgh Review.

APRIL, 1924. *Food Resources of the World.* SIR HENRY REID. "A small collection of disjointed facts and a large collection of more or less plausible fancies" having been lucidly exhibited, it is concluded that "a calm survey of the facts and probabilities is reassuring to the present generation for such time as immediately concerns it. The exhaustion of the world's resources is very far distant."

International Labour Review (Geneva).

FEBRUARY, 1924. *Family Allowances in French Industry.* R. PICARD. A description of the constitution and working of

the compensation funds from which family allowances are paid. The private system may lead to a national system of social insurance. *Social Insurance in Sweden.* DR. E. LIEDSTRAND. An account of existing legislation and proposed schemes.

MARCH. *The International Conference of Labour Statisticians.* The fifty experts of thirty different nationalities who met for the first time last October passed a series of resolutions on industrial accidents, statistics of wages, etc. *Labour Organisations in Roumania.* N. GHIULEA. The Professor of Social Economics in Clug University traces the ups and downs of the Trade Union Movement and the spread of Socialist ideas.

Journal of the Institute of Bankers.

FEBRUARY, 1924. *British Government Finance.* HENRY HIGGS. In his fourth lecture Mr. Higgs as usual tempers severe truth and sharp criticism with apt anecdotes and humorous remarks.

The Quarterly Journal of Economics (Cambridge, Mass.).

FEBRUARY, 1924. *The Agricultural Depression.* G. F. WARREN. Agriculture is injured by declining prices more than are urban industries. The depression in America may last for a decade; by which time perhaps the pre-war level of prices will be reached. *Financial and Monetary Policy of Great Britain during the Napoleonic Wars.* N. J. SILBERLING. A contribution to economic history, as to the great value of which see Clapham, ECONOMIC JOURNAL. *Denominations of the Currency in Relation to the Gold Problem.* O. C. LOCKHART. The withdrawal of the $10 and $20 reserve notes is advocated as securing a broader basis of gold currency, like that of England before the war. *Family Allowances and Clearing Funds in France.* PAUL H. DOUGLAS. A detailed description of various forms of subvention for the support of children. The allowances are mostly paid to the male head of the family. The motive of the employers is generally to obviate the increase of wages. *Earlier Theories of Crises and Cycles in the United States.* H. E. MILLER.

The American Economic Review (Cambridge, Mass.).

MARCH, 1924. *Income as Recurrent Consumable Receipts.* C. C. PLEHN. *Demand in Relation to the Business Cycle.* A. H. HANSEN. *The Emancipation of Economics.* L. K. FRANK. Inquiring "where in the scale of scientific evolution economics at present stands," the writer finds that "economics is in that speculative stage which precedes the development of a science, when men are engaged in explaining or accounting for events by verbal symbols." "In developing a science experiments are essential. . . . There are numerous experiments on group behaviour now under way." "Business cycles also present unrivalled sequence of price behaviour." Economics is the study of price behaviour. *A Recommendatory Minimum Wage Law.* A. F. LUCAS. The Massachusetts State, 1912, which does not enforce the established minimum rates by fines or imprisonment has yet effected an improvement in the condition of unskilled, unorganised female labour. *British Preferential Export Taxes.* GORDON JAMES. "The facts, that for sixty years Great Britain

has followed a free-trade policy, that international trade has grown up founded on that policy, that the British Empire comprises over a quarter of all the land area of the world, and that all nations are to-day dependent on the products of the Empire, make this new policy [of preferential taxes] of enormous potential consequence to other nations.

Supplement: Papers and Proceedings of the Thirty-sixth Annual Meeting of the American Economic Association. Among the subjects discussed were *European Commercial Policy, Railway Consolidation, Quantitative Methods in Psychological Economics, The Socialisation of Industries.*

Political Science Quarterly (New York).

MARCH, 1924. *The Agrarian Phase of the Mexican Revolution, 1911–20.* HELEN PHIPPS. The revolution was an attempt to redress grievances of long standing. *Adam Smith and Benjamin Franklin.* THOMAS D. ELIOT. Franklin's influence on Adam Smith was not so great as Patten and others have supposed. *Wage Policies and National Productivity.* S. A. LEWISOHN. *Comparative Tax Burdens.* E. R. A. SELIGMAN. An elaborate comparison of the burdens borne by the United Kingdom, France, Germany and the United States from the beginning of the century up to the War, during the War and in the post-bellum period.

Journal of Political Economy (Chicago).

FEBRUARY, 1924. *Prime Costs in the Business Cycle.* A. H. HANSEN. *Central Co-operative Banking in Russia.* E. M. KAYDEN. *Rate-making for Public Utility.* C. O. RUGGLES. *Socialisation in Germany.* E. FRANKEL. Not much progress has been made by Socialisation in that drastic sense which means elimination of unearned incomes and of profit and control of the productive process by the manual workers. Coal, potash and the electrical industries alone have admitted some measure of Socialisation. *The Most Favoured Nation Clause in Treaties.* J. VINES. The incidents of the once prevalent, American interpretation of the clause are examined in the light of historical instances.

APRIL. *German Railways and Public Finances.* R. R. KUCZYNSKI. The deficit might be reduced by certain measures, but it will be impossible for some years to obtain a surplus from the railways. *The Single Tax Complex.* H. GUNNISON BROWN. Arguments for greater land-value taxation are misapprehended or ignored by some contemporary economists. *Discrimination in Public Utility Rates.* C. O. RUGGLES. Discrimination which cannot be justified on economic or social grounds, of which there is much in existence, should be eliminated. *Germany's Regulation of the Labour Market.* E. FRANKEL. *Post-war Local Burdens.* L. R. GOTTLIEB. *The British Coal Agreement.* J. A. BOWIE. The coal treaty of 1921 substitutes measurement, publicity and facts for mere asseverations; and partly obliterates the cleavage between profit-takers and wage-earners.

Annals of the American Academy (Philadelphia).

JANUARY, 1924. Coal is the subject of this number. The earnings of coal-miners in the United States, their living conditions, the

fatal accidents, some 3 per thousand in 1920–21 against ·9 for the United Kingdom, these and other aspects of the industry are discussed by several experts. Writing on the fuel resources of the world, Mr. Holbrook of the School of Mines, Pennsylvania, estimates that some seven and a half million million tons of coal "stand between the world and coal exhaustion."

MARCH. *Raw Materials and Foodstuffs in the Commercial Policies of Nations.* WILLIAM CUTHBERTSON, who presided over the Conference which discussed this subject last Autumn, contributes chapters on Import and on Export duties, on Concessions to Foreign Capitalists for exploitation of raw material, on Population and Race Rivalry and other burning topics. A Supplement presents the views of more than twenty experts.

L'Égypte Contemporaine.

NOVEMBER, 1923. *De l'extension en France du regime du risque professionel aux accidents agricoles.* G. BLANCHARD. *A Working Scheme on which the Co-operative Movement in Egypt could be Reorganised.* DR. IBRAHIM RASHAD. *A Brief Review of the Cotton Conditions in Egypt during the Past Five Years.* G. C. DUDGEON.

DECEMBER. *Le mouvement co-opératif au Japon.* DR. I. G. LEVI.

JANUARY, 1924. *Notes on the National Income of Egypt.* JAMES I. CRAIG. An able contribution to the controversy between Dr. Lévi and Mr. Baxter mentioned in Vol. XXXIII, p. 438 of the ECONOMIC JOURNAL. Mr. Craig arrives at an estimate of L.E. 270, compared with the 306 of Mr. Lévi and the 150 of Mr. Baxter.

Journal des Économistes (Paris).

FEBRUARY, 1924. *La pression du change.* YVES-GUYOT. *La crise politique en Grande-Bretagne.* W. M. J. WILLIAMS.

MARCH. *Le Carburant National.* YVES-GUYOT. The law of February '23 requiring importers of petrol to purchase a quantity of "alcool d'industrie" amounting to 10 per cent. of the petrol they import is severely criticised. *À la recherche du "Juste prix."* CH. TURGEON. A vigorous condemnation of communistic doctrines.

APRIL. *À la recherche du "Juste prix"* (fin.). CH. TURGEON.

Revue d'Économie Politique (Paris).

JANUARY–FEBRUARY, 1924. *La réforme Agraire en Yougo-Slavie.* M. NEDELKOVITCH. To abolish feudal oppression and to provide land for an agricultural proletariat, two requisites in several provinces of the New State, have been accomplished by a reform which has freed hundreds of thousands of agricultural families from serfdom and settled them in "expropriated" lands. *La dépréciation monétaire et les valeurs mobilières Françaises.* J. LAGRENÉE. *Les causes des variations du taux de l'intérêt.* BARON MOURRE. *L'homme est il un capital?* CH. TURGEON. *Le blé français est il trop cher?* M. LARIBÉ.

Jahrbücher für Nationalökonomie und Statistik (Jena).

FEBRUARY, 1924. *Die geschichtlichen Entwicklungsbedingungen der schweizerischen Volkswirtschaft.* H. BÄCHTOLD. *Theodor Ludwic*

Lau. K. ZIELENZIGER. A biographical study forming a contribution to German economic history. Lau, who flourished in the early years of the eighteenth century, appears to have been the first to use the word "Nationalökonomie."

Among the Miscellanies are some interesting statistics respecting the movement of population in Stockholm during the last two centuries, and the present population of the world.

Archiv für Sozialwissenschaft und Sozial-politik (Tübingen).

Vol. LI., No. 2. *Zur Theorie des Geldmarktes.* A. HAIN. The "Begriff" and "Wesen" of the money market and of the capital market explain recent monetary history. *Cassels System der Theoretischen Nationalökonomie.* A. AMMON. *Die Presse.* J. GOLDSTEIN. *Die geschichtsphilosophischen Anschauungen Bismarcks.* V. GITERMANN.

Vol. LI., No. 3. *Zur Frage einer Theorie der Nichtkapitalistichen Wirtschaftsysteme.* A. TSCHAYANOFF. Now that Asia and Africa are becoming parts of the civilised world we are compelled to consider the possibility of a non-capitalistic regime co-existing with other economic systems. *Zur Soziologie der parliamentarischen Representation in England.* K. LOEWENSTEIN. *Kreditinflation und Geldtheorie.* W. MILDSCHUH. *Katholizismus und Sozialismus.* K. VORLÄNDER.

Weltwirtschaftliches Archiv (Jena).

JANUARY, 1924. *Das Geldwesen Niederlandisch-Indiens.* Prof. G. M. VERRIJN STUART. *Der moderne Wirtschaftsmensch.* Dr. W. MITSCHERLICH. *Erdteilstaaten als Weltmächte.* Dr. W. VOGEL. An "erdteilstaat" is one which, like the United States of America, extends over, but not beyond, a large portion of the earth's surface, and is politically homogeneous.

Zeitschrift für Volkswirtschaft und Sozialpolitik (Vienna).

Vol. III., Nos. 10–12. *Sechs Sätze über das Wesen der Ganzheit.* OTHMAR SPANN. A metaphysical exposition of six propositions respecting the concept of the Universe the nature of the All; *e.g.* (1). the All as such as no existence; (2) the Whole is all in all, all is in it and it is in all. The concept of the All enables us to apply the methods of physics to the moral sciences. *Nutzen und Wirtschaftsrechnung.* L. SCHÖNFIELD. The measurement of utility and other aspects of its relation to economics are elaborately discussed.

Giornale degli Economisti (Rome).

JANUARY–FEBRUARY, 1924. *Vilfredo Pareto.* A splendid tribute to the memory of departed genius is formed by a collection of *éloges*, each contributed by a leading Italian economist. Amoroso, Barone, Benini, Fanno, Gobbi, Mortara, Michels, Pantaleoni, Prato, Ricci, Vinci, these and other distinguished names are conspicuous in the long list of contributors. Of particular interest to the English reader are Prof. Ricci's observations on Pareto's dictum, that only "the necessity of considering systems of equations

determining equilibrium in the general case justifies the use of mathematics in political economy." The general theory of equilibrium is truer, observes Ricci, but the treatment of one economic quantity as dependent chiefly on another, the practice of Marshall, admits better of application.

La Riforma Sociale (Turin).

JANUARY–FEBRUARY, 1924. *Per valorizzare la statistica locale.* F. A. REPACI. Referring to the subject of the following article. *I numeri indici del costo della vita in Italia.* A. MOLINARI. A criticism of index-numbers for the cost of living and suggestions for their improvement. *Sul funzionamento dell' imposta di richezza mobile.* G. ROSSI. *Il Carteggio di un economista.* G. SOLIERI. Referring to a new edition of the correspondence of A. Verri, who was the travelling companion of Beccaria in the 'sixties of the eighteenth century.

MARCH–APRIL, 1924. *Ostacoli all' introduzione del Capitale estero in Italia.* J. AGUET. The Italian fiscal system discourages the entry of foreign capital.

Metron (Ferrara).

Vol. III., Nos. 3, 4. *Les indices économiques.* L. MARCH. Index-numbers in general, and with special reference to prices and to economic progress, are philosophically discussed. *La fecondità delle aristocrazie.* F. SAVORGNAN. A study on the fecundity of a certain aristocratic class in Germany. *La Comunità Israelitica di Trieste.* Dr. I. ZOLLER. A study on the demography of the Jewish population in Trieste.

Revista Nacional de Economia (Madrid).

No. 51–2. *Las analogias entre la crisis mundial en los siglos* III. *y* XX. G. FERRERO. An alarming parallel between the world as it is now and the declining Roman Empire. The collapse of the Senate's authority had consequences comparable with the break-up of beliefs and institutions in modern Europe. Possibly the *débâcle* of civilisation may be more tremendous in the twentieth than it was in the third century.

Bulletin of the Tokio Chamber of Commerce.

MARCH, 1924. The consequences of the Earthquake occupy most of this, as of the preceding number. The resulting deaths are now estimated at 100,000. Much unemployment is caused by the collapse of many industries. The President of the Chamber laments the destruction of temples, shrines and schools.

Social Sciences Quarterly (Peking).

JANUARY–MARCH, 1924. The titles of some articles in this number are tantalising: *The Method and Ideals of the Fabian Society; The Present State of Marriage in China; Inheritance . . . with Suggestions for the Reform of the existing Régime in China; Economic Science in a Socialist Commonwealth.*

NEW BOOKS.

English.

AMERY (RIGHT HON. L. S., M.P.). National and Imperial Economics. London: National Unionist Association. Pp. 75. 3*d*.

BELLOC (HILAIRE). Economics for Helen. London: Arrowsmith. Pp. 246.

BEVERIDGE (SIR WILLIAM). Insurance for All and Everything. ("New Way" Series). London: *Daily News*. 6*d*.

COYAJEE (J. C.). The Indian Fiscal Problem. A course of seven lectures delivered at Patna University in August, 1923. Patna: University. 1924. Pp. 178.

[Reviewing the arguments of leading economists on Protection the writer, who is a Professor in Presidency College, Calcutta, advocates a policy of Imperial Reciprocity.]

EUCKEN (WALTER). Kritische Betrachtungen zum deutschen Geldproblem. Jena: Fischer. 1923. Pp. 83.

EVANS (IFOR L.). The Agrarian Revolution in Roumania. Cambridge: University Press. 1924. Pp. 197.

[Tracing the recent legislation to the oppression of the peasants in times past, the writer views with complacency the expropriation of the boyars, from whom the little that was left by law has been taken through depreciation of currency. A decline in culture and economic efficiency is not apprehended.]

FLORENCE (P. SARGENT). Economics of Fatigue and Unrest. London: Allen and Unwin. 16*s*.

HEARNSHAW (F. J. C.). Democracy and Labour. Macmillan. 1924. Pp. 274.

[The author of *Democracy at the Crossways* here offers for popular use an entirely new and much shorter work embodying the main conclusions of the earlier work, together with additional material.]

HUGHES (THOMAS J.). State Socialism after the War. London: Bale. 1924. Pp. 363.

KEMP (WILLIAM). Precious Metals as Money. Paisley: Gardner. 1923. Pp. 336.

KEY (HELMER). European Bankruptcy and Emigration. London: Methuen. 1924. Pp. 169.

[International Co-operation, especially between Great Britain and the United States, is advocated.]

LATIF (S. A.). Economic Aspect of the Indian Rice Export Trade. Calcutta: Gupta. 1923. Pp. 83.

[In ordinary times restrictions on export are unnecessary, but in lean years some restriction is necessary; by an export duty or, better, by Government Control, as in 1918–19.]

LAYTON (W. T.). The Budget of 1933. London: *Daily News*, Ltd. 1923. 12 mo. Pp. 31. 6*d*.

[The able editor of *The Economist* takes a dip into the future and forecasts the national balance sheet in 1933 upon certain assumptions. He expects that prices in 1933 will be doubled as compared with pre-war prices, that there will be no disturbance of international peace, but that disarmament by mutual agreement will make further progress, and that there will be no organic change in our fiscal system. He suggests readjustments of income tax, with some reduction in the rate, part of which should be compensated by an increased yield from death duties. Search should be made for new sources of indirect taxation upon luxuries to

compensate for some reduction of taxation upon necessaries, and we should modify our excessive dependence upon alcohol and tobacco duties. His prophetic vision indicates a revenue of 680 millions in 1933 and an expenditure of 630. Assuming the national income to be then about 5000 millions, he claims that the charge of about 14 per cent. will not be intolerable when compared with 9 per cent. before the war.]

LEWIS (E. LLEWELYN). The Children of the Unskilled. London: King. 1924. Pp. 107.

[An inquiry directed to ascertain the supply of skilled labour obtainable from unskilled workmen's children; concluding in favour of better education and a more flexible industrial system.]

LOWENFELD (HENRY). The Birthright of Man. London: Parsons. 1923. Pp. 160.

[Plans for the abolition of unemployment, without disturbance of existing institutions, are proposed.]

MACLAREN (W. A.). Rubber, Tea, and Cacao. With special sections on Coffee, Spices, and Tobacco. London: Benn. 1924. Pp. 334.

[The volume is one of the Resources of the Empire Series; to which the Prince of Wales contributes a foreword and the Right Hon. Sir Eric Geddes a general Introduction.]

MARTIN (P. W.). The Flaw in the Price System. London: King. 1924. Pp. 109.

MILES (T. B.). Industrial Unrest, its Cause and a Suggested Cure. London: Cranton. Pp. 96.

PENSON (LILIAN M.). The Colonial Agents of the British West Indies: a Study in Colonial Adminstration mainly in the Eighteenth Century. London: University Press. 1924. Pp. 318.

PROTEDICOS (D. E.). The Financial Position of Greece. The public debt, the physical assets, and other aspects of the financial system are examined in detail. By the Secretary of the National Bank of Greece.

RATHBONE (ELEANOR F.). The disinherited family. A plea for the endowment of the family. London: Arnold. 1924.

RUSSIA. Report on economic conditions in Russia. London: Constable. Pp. viii + 164. 2*s*. 6*d*.

SNOWDEN (RIGHT HON. PHILIP). Labour and the New World. London: Cassell. 5*s*.

TEMPERLEY (H. W. V.). A History of the Peace Conference of Paris. Vol. VI. (British Institute of International Affairs.) London: Frowde. 1924. Pp. 709.

[The sixth and final volume, like its predecessor, is the work of many hands. Mr. Temperley, Reader in Modern History in the University of Cambridge, is the Editor.]

UNWIN (GEORGE), HULME (A.), and TAYLOR (G.). Samuel Oldknow and the Arkwrights. The industrial revolution at Stockport and Marple. Manchester: University Press. 1924. Pp. 259.

[Mr. Hulme and Mr. Taylor contribute chapters.]

WATTAL (P. K.). The system of Financial Administration in British India. Bombay: *Times of India*. 1923. Pp. 412.

[A general description of the financial machinery is followed by chapters on the preparation, the voting, and the execution of the budget.

American.

ABBOT (EDITH). Immigration. Select Documents and Case Records. University of Chicago. 1924. Pp. 809.

[The volume emanates from the Graduate School of Social Service administration; an institution of which Miss Abbot is Dean. As a Director of the Immigrants' Protection League she has a first-hand knowledge of relevant facts. The documents - numbering more than two hundred, beginning with a colonial steerage act dated 1751—appear to have been selected judiciously and impartially.]

BRISSENDEN (PAUL FREDERICK) and FRANKEL (EMIL). Labor Turnover in Industry: a Statistical Analysis. New York: The Macmillan Company. 1922. Pp. 216.

[A valuable examination of the method of measuring labour turnover, important to all students of the subject. Rather scanty American records are analysed in an effort to relate "accessions" to and "separations" from the labour staffs of firms to length of service, degree of skill, etc.; the results will be useful for comparison, but the book might advantageously have been compressed to half its length.]

COMMONS. Legal Foundations of Capitalism. New York: Macmillan Co. 1924. Pp. 394.

COUCHMAN (CHARLES B.). The Balance-sheet: its Preparation, Content and Interpretation. New York: *Journal of Accountancy*. 1924. Pp. 288.

FISK (HENRY E.). The Inter-ally Debts. An analysis of war and post-war public finance, 1914–1923. New York: Banker Trust Company. 1924. Pp. 367.

KAHN (OTTO H.). Why I favour the Mellon Tax Plan. New York: Citizen's National Committee. 1924. Pp. 42.

[Secretary Mellon's proposal to reduce surtaxes to a maximum of 25% is advocated on the ground that extreme taxes increase the advantages which large and established concerns have over the venturesome enterprising newcomer and pioneer; it puts a premium on idle timorous capital, instead of stimulating and rewarding active constructive venture.]

MILLER (EARL J.). Workmen's Representation in Industrial Government (University of Illinois Studies). Urbana: University of Illinois. 1922. Pp. 182.

[The Council Movement in Foreign Countries, the Non-Union Council Movement in the United States, the Theory of the Council Movement, are among the topics treated in separate chapters.]

NUSSBAUM (F. L.). Commercial Policy of the French Revolution: a Study of the Career of G. J. A. Ducher. Washington: Amer. Historical Association. 1923. Pp. 388.

[Reviewed above.]

SULZBERGER (M.). The Status of Labor in Ancient Israel. Philadelphia: Dropsie College. 1923. Pp. 128.

[Skilfully interpreting many hundreds of texts, the learned writer argues that the natives subjugated by the invading Israelites and their descendants were well treated. The ideals of democracy were first developed by the Hebrews.]

French.

BADULESCO (VICTOR V.). Les finances publiques de la Roumanie. Paris: Marcel Giard. 1923. Pp. 74, 8vo.

[A reprint of the article in the *Revue de Science et de législation financière*, in which the author gives a lucid account of the past and present finance of Roumania and takes a sanguine view of its future.]

CALMETTE (GERMAIN). Recueil des documents sur l'histoire de la question des Réparations (1919–5 Mai 1921). Paris: Costes. 1924. Pp. 539.

[A large collection of documents numbering more than 150 is preceded by an introduction dealing with the Peace Conference, the negotiations of 1920, and the resolutions of 1921.]

GOODMAN (S.). Le grand vol des titres. Paris: Giard. 1924. Pp. 119.

[On the theft of coupons, etc., payable to bearer.]

GIGNOUX (C. J.). L'après-Guerre et la politique Sociale. Paris: Colin. 1924. Pp. 200.

LAVERGNE (BERNARD). Les Co-opératives de consommation en France. Paris: Colin. 1923. Pp. 216.

LIEFMANN (ROBERT). Les formes d'Entreprises. (Bibliothèque Internationale de Bonnet.) Paris: Giard. 1924. Pp. 287.

[The Fribourg Professor's second edition is translated by H. Stelz and J. Loussert. The subject includes Co-operation and "Socialisation."]

VARKE (ALBERT). Le droit international du travail. Preface par G. ANTONELLI. Paris: Giard. 1923. Pp. 310.

[An analysis of the Labour clauses in the Treaty of Versailles and of the International Labour Organisation occupies a great part of the book.]

German.

BERL (O.). Die Chinesische Mauer. Vienna: Berl. 1923. Pp. 63.

[The policy of mutual exclusiveness pursued by the nations into which Austria-Hungary was broken up is deplored; and it is hoped that Austria may play a part in breaking down these Chinese walls.]

BRENTANO (LUGO). Der Wirtschaftende Mensch in der Geschichte. Leipsic: Memer, 1923. Pp. 498.

[A collection of lectures and articles.]

HEINECKE (DR. GUNTHER-ERFRID). Die Volkswirtschaftliche Erfüllbarkeit der Reparationsverpflichtungen, im Rahmen des paneuropäischen Wiederaufbauproblems. (Forschungen von der Sozialwissenschaftlichen Arbeitsgemeinschaft.) Berlin and Leipsic. 1924. Gruyter. Pp. 134.

KÖTZSCHKE (DR. RUDOLF). Allgemeine Wirtschaftsgeschichte der Mittelaiters. Jena: Fischer. 1924.

MANES (ALFRED). Versicherungswesen. Erster Band, Allgemeine Versicherungslehre. Vierte auflage. Teubner: Leipsic and Berlin. 1924. Pp. 231.

MANKO (DR. A.). Regenerierung der Landes-Währung. Vienna and Leipsic: Manko. 1923. Pp. 159.

[A secondary title promises a method of reckoning calculated to ensure stability of valuation.]

VADNAI (DR. EUGEN). Die stellung des Spediteurs in der arbeitsteiligin Verkehrswirtschaft. Budapest: Lloyd. 1924. Pp. 81.

[A study on the functions of the agent who is intermediary between those who despatch and those who transport goods.]

WEBER (MAX). Gesammelte Aufsätze zur Sozial und Wirtschafts geschichte. Tübingen: Mohr. 1924. Pp. 556.

[Six articles covering an immense range of subjects and periods, beginning with the agriculture of the ancient world, Mesopotamia, Egypt, Israel, etc.]

Italian.

BACHI (RICCARDO). La Cassa di risparmio delle Provincie Lombarde nella evoluzione economica della regione. 1823–1923. Milan. 1923. Pp. 567.

[A sumptuous quarto published under the auspices of the Commissione Centrale di Beneficenza, to celebrate the centenary of the Savings-Bank of the Lombard Provinces. Professor Bachi is the general editor, and there are contributions by several distinguished writers on different aspects of the subject: by Prof. Bachi on the Historical Evolution of the Bank; by Prof. Supino on the Effects of Crises; by Prof. Gini on the Importance of Lombardy to the Kingdom of Italy . . .]

CABIATI (ATTILIO). Principi di Politica Commerciale. Vol. I. La Teoria Generale degli Scambi internazionali. Genova: Stabilimento Grafico. 1924. Pp. 302.

[Among features special to his treatise on a familiar subject the author announces his treatment of international exchange in a regime of depreciated and unstable money and his study of two particular types of customs duties, countervailing imports (against " dumping ") and retaliation.]

EINAUDI (LUIGI). Le lotte del lavoro. Turin: Gobetti. 1924. Pp. 276.

[A series of republished papers containing interesting descriptions of Italian strikes, together with instructive reflections on the psychological causes and economic consequences of labour disputes.]

GANGEMI (L.). La politica economica e Finanziaria del Governo Fascista. Bologna: Zamchelli. 1904. Pp. 507.

GOBBI (PROF. ULISSE). Trattato di economia. Secunda edizione riveduta. Mila: Società editrice. 1923. Vol. I., pp. 256; Vol. II., pp. 384.

[A general treatise covering evenly a large extent of familiar ground.]

GRAZIANI (AUGUSTO). Il pensiero scientifico di Angelo Messedaglia Capitale e Interesse. . . . Two papers contributed by Professor Graziani to the Academy of Moral and Political Science, Naples.

MORTARA (GIORGIO). Prospettive Economiche, 1924. Città di Castello: Società Tipografica "Leonardo da Vinci." 1924. Pp. 420.

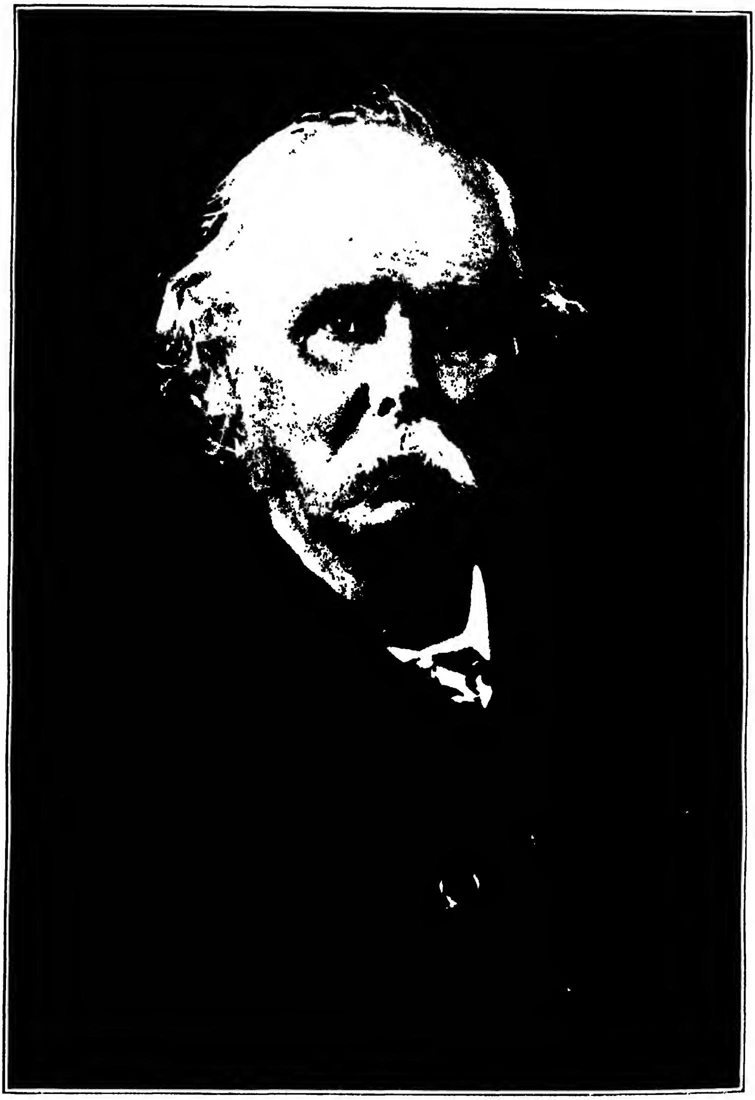
[This volume, following on a similar publication last year, contains very useful summaries of the world's production of and trade in the principal commodities in which Italy is interested. Professor Mortara is hopeful for the economic future of Italy. "Italy, who may be said to have become convalescent in 1921 after the crisis of the passage from war to peace, has prosecuted energetically in 1923 her efforts towards economic recovery." Her financial position has been greatly strengthened by the excellent harvests last year.]

SAVORGNAN (F.). La scelta matrimoniale (Studi Statistici, Metron). Ferrara: Taddei. 1924. Pp. 136.

[A study on " homogamy " : the correlation between husband and wife with respect to race and nationality and some other attributes.]

VINCI (FELICE). Statistica Metodologica. Padua. 1924. Pp. 242.

ZORLI (A.). Trattato di Economia Sociale. Turin: Bocca.



Frontispiece.

ALFRED MARSHALL, 1921.

THE ECONOMIC JOURNAL

SEPTEMBER, 1924

ALFRED MARSHALL, 1842–1924[1]

I

ALFRED MARSHALL was born at Clapham on July 26, 1842, the son of William Marshall, a cashier in the Bank of England, by his marriage with Rebecca Oliver. The Marshalls were a clerical family of the West, sprung from William Marshall, incumbent of Saltash, Cornwall, at the end of the seventeenth century. Alfred was the great-great-grandson of the Reverend William Marshall,[2] the half-legendary herculean parson of Devonshire, who, by twisting horseshoes with his hands, frightened local blacksmiths into fearing that they blew their bellows for the devil.[3] His great-grandfather was the Reverend John Marshall, Headmaster of Exeter Grammar School, who married Mary Hawtrey, daughter of the Reverend Charles Hawtrey, Sub-Dean and Canon of Exeter, and aunt of the Provost of Eton.[4]

His father, the cashier in the Bank of England, was a tough

[1] In the preparation of this Memoir I have had great assistance from Mrs. Marshall. I have to thank her for placing at my disposal a number of papers and for writing out some personal notes from which I have quoted freely. Alfred Marshall himself left in writing several autobiographical scraps, of which I have made the best use I could.

[2] By his third wife, Mary Kitson, the first child he christened in his parish, of whom he said in joke that she should be his little wife, as she duly was twenty years later.

[3] This is one of many stories of his prodigious strength which A. M. was fond of telling—how, for example, driving a pony trap in a narrow Devonshire lane and meeting another vehicle, he took the pony out and lifted the trap clean over the hedge. But we come to something more prognostical of Alfred in a little device of William Marshall's latter days. Being in old age heavy and unwieldy, yet so affected with gout as to be unable to walk up and down stairs, he had a hole made in the ceiling of the room in which he usually sat, through which he was drawn in his chair by pulleys to and from his bedroom above.

[4] Thus Alfred Marshall was third cousin once removed to Ralph Hawtrey, author of *Currency and Credit*—so there is not much in the true theory of Money which does not flow from that single stem. A. M. drew more from the subtle Hawtreys than from the Reverend Hercules.

old character, of great resolution and perception, cast in the mould of the strictest Evangelicals, bony neck, bristly projecting chin, author of an Evangelical epic in a sort of Anglo-Saxon language of his own invention which found some favour in its appropriate circles, surviving despotically-minded into his ninety-second year. The nearest objects of his masterful instincts were his family, and their easiest victim his wife; but their empire extended in theory over the whole of womankind, the old gentleman writing a tract entitled *Man's Rights and Woman's Duties.* Heredity is mighty, and Alfred Marshall did not altogether escape the influence of the parental mould. An implanted masterfulness towards womankind warred in him with the deep affection and admiration which he bore to his own wife, and with an environment which threw him in closest touch with the education and liberation of women.

II

At nine years of age Alfred was sent to Merchant Taylors School, for which his father, perceiving the child's ability, had begged a nomination from a Director of the Bank.[1] In mingled affection and severity his father recalls James Mill. He used to make the boy work with him for school, often at Hebrew, until eleven at night. Indeed Alfred was so much overworked by his father that, he used to say, his life was saved by his Aunt Louisa, with whom he spent long summer holidays near Dawlish. She gave him a boat and a gun and a pony, and by the end of the summer he would return home, brown and well. E. C. Dermer, his fellow-monitor at Merchant Taylors, tells that at school he was small and pale, badly dressed, looked overworked and was called "tallow candles"; that he cared little for games, was fond of propounding chess problems,[2] and did not readily make friends.[3]

[1] "Do you know that you are asking me for £200?" said the Director: but he gave it.

[2] Mrs. Marshall writes: "As a boy, Alfred suffered severely from headache, for which the only cure was to play chess. His father therefore allowed chess for this purpose; but later on he made A. promise never to play chess. This promise was kept all through his life, though he could never see a chess problem in the newspapers without getting excited. But he said that his father was right to exact this promise, for otherwise he would have been tempted to spend all his time on it." A. M. himself once said: "We are not at liberty to play chess games, or exercise ourselves upon subtleties that lead nowhere. It is well for the young to enjoy the mere pleasure of action, physical or intellectual. But the time presses; the responsibility on us is heavy."

[3] His chief school friends were H. D. Trail, later Fellow of St. John's College, Oxford, and Sidney Hall, afterwards an artist. Trail's brother gave him a copy of Mill's *Logic*, which Trail and he read with enthusiasm and discussed at meals at the Monitors' table.

Rising to be Third Monitor, he became entitled in 1861, under old statutes, to a scholarship at St. John's College, Oxford, which would have led in three years to a Fellowship, and would have furnished him with the same permanence of security as belonged in those days to Eton Scholars at King's or Winchester Scholars at New College. It was the first step to ordination in the Evangelical ministry for which his father designed him. But this was not the main point for Alfred—it meant a continued servitude to the Classics.[1] He had painful recollections in later days of his tyrant father keeping him awake into the night for the better study of Hebrew, whilst at the same time forbidding him the fascinating paths of mathematics. His father hated the sight of a mathematical book, but Alfred would conceal Potts' Euclid in his pocket as he walked to and from school. He read a proposition and then worked it out in his mind as he walked along, standing still at intervals, with his toes turned in. The fact that the curriculum of the Sixth Form at Merchant Taylors reached so far as the Differential Calculus, had excited native proclivities. Airy, the mathematical master, said that "he had a genius for mathematics." Mathematics represented for Alfred emancipation, and he used to rejoice greatly that his father could not understand them. No! he would not be buried at Oxford under dead languages; he would run away—to be a cabin-boy at Cambridge and climb the rigging of geometry and spy out the heavens.

At this point there comes on the scene a well-disposed uncle, willing to lend him a little money (for his father was too poor to help further, when the Oxford Scholarship was abandoned)--repaid by Alfred soon after taking his degree from what he earned by teaching--which, with a Parkin's Exhibition[2] of £40 a year

[1] Near the end of his life A. M. wrote the following characteristic sentences about his classical studies: "When at school I was told to take no account of accents in pronouncing Greek words. I concluded that to burden my memory with accents would take up time and energy that might be turned to account; so I did not look out my accents in the dictionary; and received the only very heavy punishment of my life. This suggested to me that classical studies do not induce an appreciation of the value of time; and I turned away from them as far as I could towards mathematics. In later years I have observed that fine students of science are greedy of time: but many classical men seem to value it lightly. I will add that my headmaster was a broad-minded man; and succeeded in making his head form write Latin Essays, thought out in Latin: not thought out in English and translated into Latin. I am more grateful for that than for anything else he did for me."

[2] He was promoted to a Scholarship in the same year.

from St. John's College, Cambridge,[1] opened to him the doors of Mathematics and of Cambridge. Since it was a legacy of £250 from this same uncle which enabled him, fourteen years later, to pay his visit to the United States, the story of the sources of this uncle's wealth, which Alfred often told, deserve a record here. Having sought his fortunes in Australia and being established there at the date of the gold discoveries, a little family eccentricity disposed him to seek his benefit indirectly. So he remained a pastoralist, but, to the mirth of his neighbours, refused to employ anyone about his place who did not suffer from some physical defect, staffing himself entirely with the halt, the blind, and the maimed. When the gold boom reached its height, his reward came. All the able-bodied labourers migrated to the gold-fields and Charles Marshall was the only man in the place able to carry on. A few years later he returned to England with a fortune, ready to take an interest in a clever, rebellious nephew.

In 1917 Marshall put into writing the following account of his methods of work at this time and later: "An epoch in my life occurred when I was, I think, about seventeen years old. I was in Regent Street, and saw a workman standing idle before a shop-window: but his face indicated alert energy, so I stood still and watched. He was preparing to sketch on the window of a shop guiding lines for a short statement of the business concerned, which was to be shown by white letters fixed to the glass. Each stroke of arm and hand needed to be made with a single free sweep, so as to give a graceful result; it occupied perhaps two seconds of keen excitement. He stayed still for a few minutes after each stroke, so that his pulse might grow quiet. If he had saved the ten minutes thus lost, his employers would have been injured by more than the value of his wages for a whole day. That set up a train of thought which led me to the resolve never to use my mind when it was not fresh; and to regard the intervals between successive strains as sacred to absolute repose. When I went to Cambridge and became full master of myself, I resolved never to read a mathematical book for more than a quarter of an hour at a time, without a break.

[1] There is a letter from Dr. Bateson, Master of St. John's, to Dr. Hessey, Headmaster of Merchant Taylors, dated June 15, 1861, announcing this Exhibition, and giving early evidence of the interest which Dr. Bateson—like Dr. Jowett in later days—always maintained in Alfred Marshall. When A. M. applied for the Bristol appointment in 1877, Dr. Bateson wrote: "I have a great admiration for his character, which is remarkable for its great simplicity, earnestness, and self-sacrificing conscientiousness."

I had some light literature always by my side, and in the breaks I read through more than once nearly the whole of Shakespeare, Boswell's *Life of Johnson*, the *Agamemnon* of Æschylus (the only Greek play which I could read without effort), a great part of Lucretius and so on. Of course I often got excited by my mathematics, and read for half an hour or more without stopping: but that meant that my mind was intense, and no harm was done." A power of intense concentration for brief periods, combined with a lack of power of continuous concentration, was characteristic of him all his life. He was seldom able to execute at white heat any considerable piece of work. He was also bothered by the lack of a retentive memory: even as an undergraduate his mathematical book-work troubled him as much as the problems did. As a boy he had a strong arithmetical faculty, which he afterwards lost.

Meanwhile at St. John's College, Cambridge, Alfred Marshall fulfilled his ambitions. In 1865 he was Second Wrangler,[1] the year when Lord Rayleigh was Senior, and he was immediately elected to a Fellowship. He proposed to devote himself to the study of molecular physics. Meanwhile he earned his living (and repaid Uncle Charles) by becoming for a brief period a mathematical master at Clifton, under Percival, for whom he had a great veneration. A little later he returned to Cambridge and took up coaching for the Mathematical Tripos for a short time. In this way "Mathematics," he said, "had paid my arrears. I was free for my own inclinations."

The main importance of Marshall's time at Clifton was that he made friends with H. G. Dakyns, who had gone there as an assistant master on the foundation of Clifton College in 1862, and, through him, with J. R. Mozley. These friendships opened to him the door into the intellectual circle of which Henry Sidgwick was the centre. Up to this time there is no evidence of Marshall's having been in touch with the more eminent of his contemporaries, but soon after his return to Cambridge he became a member of the small, informal Discussion Society known as the "Grote Club."

The Grote Club came into existence with discussions after dinner in the Trumpington Vicarage of the Reverend John Grote, who was Knightbridge Professor of Moral Philosophy from 1855 till his death in 1866. The original members, besides Grote, were Henry Sidgwick, Aldis Wright, J. B. Mayor, and

[1] One of the famous band of Second Wranglers, which includes Whewell, Clerk Maxwell, Kelvin, and W. K. Clifford.

John Venn.[1] J. R. Mozley of King's and J. B. Pearson of St. John's joined a little later. Marshall wrote[2] the following account of his own connection with the Society :

"When I was admitted in 1867, the active members were Professor F. D. Maurice (Grote's successor), Sidgwick, Venn, J. R. Mozley and J. B. Pearson. . . . After 1867 or 1868 the club languished a little; but new vigour was soon imparted to it by the advent of W. K. Clifford and J. F. Moulton. For a year or two Sidgwick, Mozley, Clifford, Moulton, and myself were the active members; and we all attended regularly. Clifford and Moulton had at that time read but little philosophy; so they kept quiet for the first half-hour of the discussion, and listened eagerly to what others, and especially Sidgwick, said. Then they let their tongues loose, and the pace was tremendous. If I might have verbatim reports of a dozen of the best conversations I have heard, I should choose two or three from among those evenings in which Sidgwick and Clifford were the chief speakers. Another would certainly be a conversation at tea before a Grote Club meeting, of which I have unfortunately no record (I think it was early in 1868), in which practically no one spoke but Maurice and Sidgwick. Sidgwick devoted himself to drawing out Maurice's recollections of English social and political life in the 'thirties, 'forties, and 'fifties. Maurice's face shone out bright, with its singular holy radiance, as he responded to Sidgwick's inquiries and suggestions; and we others said afterwards that we owed all the delight of that evening to him. . . ."

It was at this time and under these influences that there came the crisis in his mental development, of which in later years he often spoke. His design to study physics was (in his own words) "cut short by the sudden rise of a deep interest in the philosophical foundation of knowledge, especially in relation to theology."

In Marshall's undergraduate days at Cambridge a preference for Mathematics over Classics had not interfered with the integrity of his early religious beliefs. He still looked forward to ordination and his zeal directed itself at times towards the field of Foreign Missions. A missionary he remained all his life, but after a quick struggle religious beliefs dropped away, and he became, for the rest of his life, what used to be called an agnostic. Of his relationship to Sidgwick at this time, Marshall

[1] For Dr. Venn's account of early meetings, see *Henry Sidgwick : a Memoir*, p. 134.
[2] Printed in *Henry Sidgwick : a Memoir*, p. 137.

spoke as follows (at the meeting for a Sidgwick Memorial, Trinity Lodge, Nov. 26, 1900): "Though not his pupil in name, I was in substance his pupil in Moral Science, and I am the oldest of them in residence. I was fashioned by him. He was, so to speak, my spiritual father and mother: for I went to him for aid when perplexed, and for comfort when troubled; and I never returned empty away. The minutes that I spent with him were not ordinary minutes; they helped me to live. I had to pass through troubles and doubts somewhat similar to those with which he, with broader knowledge and greater strength, had fought his way; and perhaps of all the people who have cause to be grateful to him, none has more than I."

Marshall's Cambridge career came just at the date which will, I think, be regarded by the historians of opinion as the critical moment at which Christian dogma fell away from the serious philosophical world of England, or at any rate of Cambridge. In 1863 Henry Sidgwick, aged twenty-four, had subscribed to the Thirty-Nine Articles as a condition of tenure of his Fellowship,[1] and was occupied in reading Deuteronomy in Hebrew and preparing lectures on the Acts of the Apostles. Mill, the greatest intellectual influence on the youth of the age, had written nothing which clearly indicated any divergence from received religious opinions up to his *Examination of Hamilton* in 1865.[2] At about this time Leslie Stephen was an Anglican clergyman, James Ward a Nonconformist minister, Alfred Marshall a candidate for holy orders, W. K. Clifford a High Churchman. In 1869 Sidgwick resigned his Trinity Fellowship, "to free myself from dogmatic obligations." A little later none of these could have been called Christians. Nevertheless Marshall, like Sidgwick,[3] was as far as possible from adopting an "anti-religious" attitude. He sympathised with Christian morals and Christian ideals and Christian incentives. There is nothing in his writings depreciating religion in any form; few of his pupils could have spoken definitely about his religious opinions. At the end of his life he said, "Religion seems to me an attitude," and that, though he had given up Theology, he believed more and more in Religion.

The great change-over of the later 'sixties was an intellectual

[1] He had decided in 1861 not to take orders.

[2] Mill's *Essays on Religion*, which gave his final opinions, were not published until 1874, after his death.

[3] For a most interesting summary of Sidgwick's attitude in later life, see his *Memoir*, p. 505. Or see the last paragraph of W. K. Clifford's "Ethics of Religion" (*Lectures and Essays*, ii. 244) for another characteristic reaction of Marshall's generation

change, not the ethical or emotional change which belongs to a later generation, and it was a wholly intellectual debate which brought it about. Marshall was wont to attribute the beginning of his own transition of mind to the controversy arising out of H. L. Mansel's *Bampton Lectures*, which was first put into his hands by J. R. Mozley. Mansel means nothing to the present generation. But, as the protagonist of the last attempt to found Christian dogma on an intellectual basis, he was of the greatest importance in the 'sixties. In 1858 Mansel, an Oxford don and afterwards Dean of St. Paul's, "adopted from Hamilton [1] the peculiar theory which was to enlist Kant in the service of the Church of England" [2]—an odd tergiversation of the human mind, the influence of which was great in Oxford for a full fifty years. Mansel's Bampton Lectures of 1858 brought him to the front as an intellectual champion of orthodoxy. In 1865, the year in which Marshall took his degree and had began to turn his mind to the four quarters of heaven, there appeared Mill's *Examination of Sir William Hamilton's Philosophy*, which included a criticism of Mansel's extension of Hamilton to Christian Theology. Mansel replied. Mansel's defence of orthodoxy "showed me," Marshall said, "how much there was to be defended." The great controversy dominated Marshall's thoughts and drove him for a time to metaphysical studies, and then onward to the social sciences.

Meanwhile in 1859, the year following the Bampton Lectures, the *Origin of Species* had appeared, to point away from heaven or the clouds to an open road on earth; and in 1860-62 Herbert Spencer's *First Principles* (unreadable as it now is), also born out of the Hamilton-Mansel controversy, took a new direction, dissolved metaphysics in agnosticism, and warned all but ingrained metaphysical minds away from a blind alley. Metaphysical agnosticism, Evolutionary progress, and—the one remnant still left of the intellectual inheritance of the previous generation—Utilitarian ethics joined to propel the youthful mind in a new direction.

From Metaphysics, therefore, Marshall turned his mind to Ethics. It would be true, I suppose, to say that Marshall never

[1] In 1836 Sir William Hamilton, having established his genealogy and made good his claim to a baronetcy, had been appointed to the Chair of Logic and Metaphysics at Edinburgh, and delivered during the next eight years the famous lectures which attempted the dangerous task of superimposing influences drawn from Kant and the German philosophers on the Scottish tradition of common sense.

[2] Stephen, *English Utilitarians*, iii. 38?.

departed explicitly from the Utilitarian ideas which dominated the generation of economists who preceded him. But it is remarkable with what caution—in which respect he goes far beyond Sidgwick and is at the opposite pole from Jevons—he handled all such matters. There is, I think, no passage in his works in which he links economic studies to any ethical doctrine in particular. The solution of economic problems was for Marshall, not an application of the hedonistic calculus, but a prior condition of the exercise of man's higher faculties, irrespective, almost, of what we mean by "higher." The economist can claim, and this claim is sufficient for his purposes, that "the study of the causes of poverty is the study of the causes of the degradation of a large part of mankind."[1] Correspondingly, the possibility of progress "depends in a great measure upon facts and inferences, which are within the province of economics; and this it is which gives to economic studies their chief and their highest interest."[2] This remains true even though the question also "depends partly on the moral and political capabilities of human nature; and on these matters the economist has no special means of information; he must do as others do, and guess as best he can."[3]

This was his final position. Nevertheless it was only through Ethics that he first reached Economics. In a retrospect of his mental history, drawn from him towards the end of his life, he said: "From Metaphysics I went to Ethics, and thought that the justification of the existing condition of society was not easy. A friend, who had read a great deal of what are now called the Moral Sciences, constantly said: 'Ah! if you understood Political Economy you would not say that.' So I read Mill's *Political Economy* and got much excited about it. I had doubts as to the propriety of inequalities of *opportunity*, rather than of material comfort. Then, in my vacations I visited the poorest quarters of several cities and walked through one street after another, looking at the faces of the poorest people. Next, I resolved to make as thorough a study as I could of Political Economy."

His passage into Economics is also described in his own words in some pages,[4] written about 1917 and designed for the Preface to *Money, Credit and Commerce*: "About the year 1867

[1] *Principles* (1st ed.), pp. 3, 4. [2] *Ibid.* [3] *Ibid.*

[4] Rescued by Mrs. Marshall from the waste-paper basket, whither too great a proportion of the results of his mental toil found their way; like his great-great-uncle, the Reverend Richard Marshall, who is said to have been a good poet and was much pressed to publish his compositions, to which, however, he had so great an objection that lest it be done after his death, he burnt all his papers.

(while mainly occupied with teaching Mathematics at Cambridge), Mansel's *Bampton Lectures* came into my hands and caused me to think that man's own possibilities were the most important subject for his study. So I gave myself for a time to the study of Metaphysics; but soon passed to what seemed to be the more progressive study of Psychology. Its fascinating inquiries into the possibilities of the higher and more rapid development of human faculties brought me into touch with the question: how far do the conditions of life of the British (and other) working classes generally suffice for fullness of life? Older and wiser men told me that the resources of production do not suffice for affording to the great body of the people the leisure and the opportunity for study; and they told me that I needed to study Political Economy. I followed their advice, and regarded myself as a wanderer in the land of dry facts; looking forward to a speedy return to the luxuriance of pure thought. But the more I studied economic science, the smaller appeared the knowledge which I had of it, in proportion to the knowledge that I needed; and now, at the end of nearly half a century of almost exclusive study of it, I am conscious of more ignorance of it than I was at the beginning of the study."

In 1868, when he was still in his metaphysical stage, a desire to read Kant in the original led him to Germany. "Kant my guide," he once said, "the only man I ever worshipped: but I could not get further: beyond seemed misty, and social problems came imperceptibly to the front. Are the opportunities of real life to be confined to a few?" He lived at Dresden with a German Professor who had previously coached Henry Sidgwick.[1] Hegel's *Philosophy of History* greatly influenced him. He also came in contact with the work of the German economists, particularly Roscher. Finally Dr. Bateson, the Master of St. John's, was instrumental in giving him a career in life by persuading the College to establish for him a special lectureship in Moral Science.[2] He soon settled down to Economics, though for a time he gave

[1] He was again in Germany, living in Berlin, in the winter of 1870-71, during the Franco-German War.

[2] In a conversation I had with him a few weeks before his death he dwelt especially on Hegel's *Philosophy of History* and the friendly action of Dr. Bateson as finally determining the course of his life. Since J. B. Mayor, the first "Moral Science lecturer" in Cambridge, had held a similar lectureship at St. John's for some time, whilst the Rev. J. B. Pearson was also a Johnian and a moral scientist, the appointment of another lecturer in the subject was a somewhat unusual step. Henry Sidgwick had been appointed to a lectureship in Moral Science at Trinity in the previous year, 1867; and Venn had come back to Cambridge as a Moral Science lecturer at Caius in 1862.

short courses on other branches of Moral Science—on Logic and on Bentham.[1]

His dedication to economic study—for so he always considered it, not less ordained in spirit than if he had fulfilled his father's desire—was now effected. His two years of doubt and disturbance of mind left on his imagination a deep impression, to which in later years he would often recur with pupils whom he deemed worthy of the high calling—for so he reckoned it—of studying with scientific disinterestedness the modes and principles of the daily business of life, by which human happiness and the opportunities for good life are, in great measure, determined.

Before we leave the early phase, when he was not yet an economist, we may pause a moment to consider the colour of his outlook on life, as, at that time, it was already fixed in him.

Like his two colleagues, Henry Sidgwick and James Ward, in the Chairs of the Moral Sciences at Cambridge during the last decades of the nineteenth century, Alfred Marshall belonged to the tribe of sages and pastors; yet, like them also, endowed with a double nature, he was a scientist too. As a preacher and pastor of men he was not particularly superior to other similar natures. As a scientist he was, within his own field, the greatest in the world for a hundred years. Nevertheless it was to the first side of his nature that he himself preferred to give the pre-eminence. This self should be master, he thought; the second self, servant. The second self sought knowledge for its own sake; the first self subordinated abstract aims to the need for practical advancement. The piercing eyes and ranging wings of an eagle were often called back to earth to do the bidding of a moraliser.

This double nature was the clue to Marshall's mingled strength and weakness; to his own conflicting purposes and waste of strength; to the two views which could always be taken about him; to the sympathies and antipathies he inspired.

In another respect the diversity of his nature was pure advantage. The study of economics does not seem to require any specialised gifts of an unusually high order. Is it not, intellectually regarded, a very easy subject compared with the higher branches of philosophy and pure science? Yet good, or even competent, economists are the rarest of birds. An easy subject,

[1] Mrs. Marshall remembers how in the early seventies at Newnham, Mary Kennedy (Mrs. R. T. Wright) and she had to write for him "a dialogue between Bentham and an Ascetic."

at which very few excel! The paradox finds its explanation, perhaps, in that the master-economist must possess a rare *combination* of gifts. He must reach a high standard in several different directions and must combine talents not often found together. He must be mathematician, historian, statesman, philosopher—in some degree. He must understand symbols and speak in words. He must contemplate the particular in terms of the general, and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near the earth as a politician. Much, but not all, of this ideal many-sidedness Marshall possessed. But chiefly his mixed training and divided nature furnished him with the most essential and fundamental of the economist's necessary gifts—he was conspicuously historian and mathematician, a dealer in the particular and the general, the temporal and the eternal, at the same time.

III

The task of expounding the development of Marshall's Economics is rendered difficult by the long intervals which generally separated the initial discovery and its oral communication to pupils from the final publication in a book to the world outside. Before attempting this, it will be convenient to trace briefly the outward course of his life from his appointment to a lectureship at St. John's College, Cambridge, in 1868 to his succession to the Chair of Political Economy in Cambridge in 1885.

For nine years Marshall remained Fellow and Lecturer of St. John's, laying the foundations of his subject but publishing nothing.[1] After his introduction to the Grote Club he was particularly intimate with W. K. Clifford[2] and Fletcher Moulton. Clifford was chief favourite, though "he was too fond of astonishing people." As a member, a little later on, of the "Eranus" he was in touch with Sidgwick, Venn, Fawcett, Henry Jackson and other leaders of that first age of the emancipation of Cambridge.

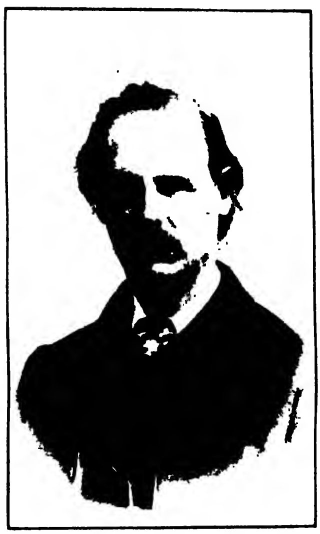
[1] The occasional articles belonging to this period are included in the Bibliography below.

[2] Clifford, who was three years Marshall's junior, came up to Trinity in 1863, was elected to a Fellowship in 1868, and resided in Cambridge, where his rooms were "the meeting point of a numerous body of friends" (*vide* Sir F. Pollock's Memoir), until 1871.

1855.

1869.

(With Mrs. Marshall) 1877.



1892.

ALFRED MARSHALL.

At this time he used to go abroad almost every long vacation. Mrs. Marshall writes:

"He took with him £60 [1] and a knapsack, and spent most of the time walking in the high Alps. This walking, summer after summer, turned him from a weak into a strong man. He left Cambridge early in June jaded and overworked and returned in October brown and strong and upright. Carrying the knapsack pulled him upright, and until he was over eighty he remained so. He even then exerted himself almost painfully to hold himself straight. When walking in the Alps his practice was to get up at six and to be well on his way before eight. He would walk with knapsack on his back for two or three hours. He would then sit down, sometimes on a glacier, and have a long pull at some book—Goethe or Hegel or Kant or Herbert Spencer—and then walk on to his next halting-place for the night. This was in his philosophic stage. Later on he worked out his theories of Domestic and Foreign Trade in these walks. A large box of books, etc., was sent on from one stage to another, but he would go for a week or more just with a knapsack. He would wash his shirt by holding it in a fast-running stream and dry it by carrying it on his alpenstock over his shoulder. He did most of his hardest thinking in these solitary Alpine walks.

"These *Wanderjahre* gave him a love for the Alps which he always retained, and even in 1920 (for the last time) we went to the South Tyrol, where he sat and worked in the high air.

"Alfred always did his best work in the open air. When he became Fellow of St. John's he did his chief thinking between 10 a.m. and 2 p.m. and between 10 p.m. and 2 a.m. He had a monopoly of the Wilderness in the daytime and of the New Court Cloisters at night. At Palermo in the early eighties he worked on the roof of a quiet hotel, using the cover of the bath as an awning. At Oxford he made a 'Den' in the garden in which he wrote. At Cambridge he worked in the balcony, and later in a large revolving shelter, fitted up as a study, called 'The Ark,' and in the Tyrol he arranged a heap of stones, a camp stool and an air cushion into what he called a 'throne,' and in later years we always carried a tent shelter with us, in which he spent the day."

In 1875 Marshall visited the United States for four months.

[1] He used to reckon that his necessary expenditure as a bachelor Fellow amounted to £300 a year, including £60 for vacation travel.

He toured the whole of the East, and travelled as far as San Francisco. At Harvard and Yale he had long talks with the academic economists, and he had many introductions everywhere to leading citizens. But his chief purpose was the "study of the Problem of Protection in a New Country." About this he inquired on all hands, and towards the end of his trip was able to write in a letter home: "In Philadelphia I spent many hours in conversation with the leading protectionists. And now I think, as soon as I have read some books they have recommended me to read, I shall really know the whole of their case; and I do not believe there is or ever has been another Englishman who could say the same."

On his return to England he read a paper at the Cambridge Moral Science Club on American Industry, Nov. 17, 1875, and later on he lectured at Bristol, in 1878, on "The Economic Condition of America." The American trip made on him a great impression, which coloured all his future work. He used to say that it was not so much what he actually learnt, as that he got to know what things he wanted to learn; that he was taught to see things in proportion; and that he was enabled to expect the coming supremacy of the United States, to know its causes and the directions it would take.

Meanwhile he had been helping Fawcett, who was Professor, and Henry Sidgwick, to establish Political Economy as a serious study in the University of Cambridge. Two of his earliest pupils, H. S. Foxwell and, later on, my father, John Neville Keynes, who took the Moral Sciences Tripos in 1875, joined these three as lecturers on Political Economy in the University.

In 1876 Alfred Marshall became engaged to Miss Mary Paley, a great-granddaughter of the famous Archdeacon. Miss Paley was a former pupil of his and was a lecturer in Economics at Newnham.[1] His first book, *Economics of Industry*, published in 1879, was written in collaboration with her; indeed it had been, at the start, her book and not his, having been undertaken by her at the request of a group of Cambridge University Extension lecturers. They were married in 1877. During forty-seven years of married life his dependence upon her devotion was complete. Her life was given to him and to his work with a

[1] Miss Paley was one of the small band of five pioneers who, before the foundation of Newnham College, came into residence under Miss Clough in 1871 at 74 Regent Street, which had been taken and furnished for the purpose by Henry Sidgwick. She and Miss Bulley, taking the Moral Sciences Tripos in 1874 as Students of the "Association for Promoting the Higher Education of Women in Cambridge," were the first of the group to take honours at Cambridge.

degree of unselfishness and understanding that makes it difficult for friends and old pupils to think of them separately or to withhold from her shining gifts of character a big share in what his intellect accomplished.

Marriage, by involving the loss of his Fellowship, meant leaving Cambridge for a time,[1] and Marshall went to Bristol as the first Principal of University College, and as Professor of Political Economy. "Just at that time," Marshall has recorded, "Balliol and New Colleges at Oxford were setting up at Bristol the first 'University College': that is, a College designed to bring higher educational opportunities within the reach of the inhabitants of a large city, which had no University of its own. I was elected its first Principal: my wife lectured on Political Economy to a class consisting chiefly of ladies in the morning, and I lectured in the evening to a class composed chiefly of young business men." Apart from his regular classes he gave a number of public evening lectures (references to some of which will be found in the Bibliographical Note below[2]), including a series on Henry George's *Progress and Poverty*. The work of the Marshalls at Bristol was much appreciated there, and the town kept up an interest in his career long after he had left it. But the administrative work, especially the business of begging money, which in view of the meagre endowments of the college was one of the main duties of the Principal, proved irksome and uncongenial. Soon after his marriage his health and nerves began to break down, chiefly as a result of stone in the kidney. He was anxious to resign the position of Principal, but there was no convenient opportunity until 1881, when the appointment of Professor Ramsay to the Department of Chemistry provided a suitable successor. He went with his wife to Italy for nearly a year, working quietly on the roof of a small hotel at Palermo for five months and then moving to Florence and to Venice. He came back to Bristol, where he was still Professor of Political Economy, in 1882 with his health much restored; but he remained for the rest of his life somewhat hypochondriacal and inclined to consider himself on the verge of invalidism. In fact, his constitution was extremely tough and he remained in harness as a writer up to a very advanced age. But his nervous

[1] For a week or two Marshall entertained the idea of becoming a candidate for the Esquire Bedellship at Cambridge, as a help towards keeping himself. But "the more I look at the poker," he finally concluded, "the less I like it." He was actually, for a short time, Steward of St. John's.

[2] The lecture on "Water as an Element of National Wealth" is particularly interesting.

equilibrium was easily upset by unusual exertion or excitement or by controversy and difference of opinion; his power of continuous concentration on difficult mental work was inferior to his wishes; and he became dependent on a routine of life adapted even to his whims and fancies. In truth he was haunted by a feeling that his physical strength and power of continuous concentration were inferior to the fields of work which he saw stretching ahead, and to the actual constructions he had conceived but not yet given to the world. By 1877, when he was thirty-five years of age, he had worked out within him the foundations of little less than a new science, of great consequence to mankind; and a collapse of health and strength during the five years following, when he should have been giving all this to the world, partly broke his courage, though not his determination.

Amongst the Governors of University College, Bristol, were Dr. Jowett, the Master of Balliol, and Professor Henry Smith, and these two were accustomed to stay with the Marshalls on their periodic visits to Bristol. Jowett's interest in Economics was always lively. While Tutor of Balliol he had given courses of set lectures on Political Economy, and he continued to direct individual undergraduates in the subject up to the end of his life.[1] Jowett's interest and belief in Alfred Marshall were keenly aroused by the long evening talks which followed the meetings of the Governing Body; and, on the premature death of Arnold Toynbee in 1883, he invited Marshall to take his place as Fellow of Balliol and Lecturer in Political Economy to the selected candidates for the Indian Civil Service.[2]

Marshall's Oxford career was brief but successful. He attracted able pupils, and his public lectures were attended by larger and more enthusiastic classes than at any other period of his life. He encountered with credit, on different occasions,

[1] In the charming little obituary of Jowett which Marshall contributed to the ECONOMIC JOURNAL (Vol. III., p. 745), he wrote: "He took part in most of the questions which agitate modern economists; but his own masters were Plato and Ricardo. Everything that they said, and all that rose directly out of what they said, had a special interest for him. . . . In pure economics his favourite subject was the Currency, and he took a keen interest in the recent controversy on it. His views were generally conservative; and he was never converted to bimetallism. But he was ready to follow wherever Ricardo had pointed the way; and in a letter written not long ago he raised the question whether the world would not outgrow the use of gold as its standard of value, and adopt one of those artificial standards which vex the soul of Mr. Giffen."

[2] Jowett always remained very fond of Alfred Marshall, and, after the Marshalls left Oxford, it was with them that he generally stayed on his visits to Cambridge.

Henry George and Hyndman in public debate, and was taking a prominent position in the University. In November 1884, however, Fawcett died, and in January 1885 Marshall returned to Cambridge as Professor of Political Economy.

IV

Marshall's serious study of Economic Theory began in 1867; his characteristic doctrines were far developed by 1875; and by 1883 they were taking their final form. Nevertheless no part of his work was given to the world at large in adequate shape until 1890 (*Principles of Economics*), and that part of the subject, at which he had worked earliest and which was most complete by 1875, was not treated in a published book until nearly fifty years later, in 1923 (*Money, Credit and Commerce*). Meanwhile he had not kept his ideas to himself, but had shared them without reserve in lecture and in talk with friends and pupils. They leaked out to wider circles in privately printed pamphlets and through the writings of his pupils, and were extracted in cross-examination by Royal Commissions. Inevitably when the books themselves appeared, they lacked the novelty and path-breaking powers which would have been acclaimed in them a generation earlier, and those economists all over the world who know Marshall only by his published work may find it difficult to understand the extraordinary position claimed for him by his English contemporaries and successors. It is proper, therefore, that I should make an attempt, necessarily imperfect from lack of full data, to trace the progress of his ideas; and then to set forth the reasons or the excuses for the unhappy delay in their publication.

Marshall's serious study of Economics began in 1867. To fix our ideas of date: Mill's *Political Economy*[1] had appeared in 1848; the seventh edition, in 1871, was the last to receive Mill's own corrections; and Mill died in 1873. *Das Kapital* of Marx appeared in 1868; Jevons' *Theory of Political Economy*[2]

[1] What a contrast to Marshall's *Principles* the drafting of this famous book presents! Mill's *Political Economy* was commenced in the autumn of 1845 and was ready for the press before the end of 1847. In this period of little more than two years the work was laid aside for six months while Mill was writing articles in the *Morning Chronicle* (sometimes as many as five a week) on the Irish Peasant problem. At the same time Mill was occupied all day in the India Office. (See Mill's *Autobiography*.)

[2] Jevons' *Serious Fall in the Value of Gold ascertained, and its Social Effects set forth*, had appeared in 1863 and his *Variation of Prices* in 1865, from which two papers the modern method of Index Numbers takes its rise. His main papers on the Periodicity of Commercial Crises were later (1875–1879).

in 1871; Menger's *Grundsätze der Volkswirtschaftslehre*, also in 1871; Cairnes' *Leading Principles* in 1874.

Thus when Marshall began, Mill and Ricardo still reigned supreme and unchallenged. Roscher, of whom Marshall often spoke, was the only other influence of importance. The notion of applying mathematical methods was in the air. But it had not yet yielded anything substantial. Cournot's *Principes Mathématiques de la Théorie des Richesses* (1835) is mentioned by Marshall in the Preface to the first edition of the *Principles of Economics* as having particularly influenced him; but I do not know at what date this book first came into his hands.[1] This, and the natural reaction of Ricardo on a Cambridge mathematician of that date,[2] with perhaps some hints of algebraical treatment in the arithmetical examples of Mill's Book III. chapter xviii.,[3] on "International Values," were all that Marshall had to go upon in the first instance. An account of the progress of his thought from 1867 to his American trip in 1875, which Marshall himself put into writing,[4] is appropriate at this point:—

> "While still giving private lessons in mathematics,[5] he translated as many as possible of Ricardo's reasonings into mathematics; and he endeavoured to make them more general. Meanwhile he was attracted towards the new views of economics taken by Roscher and other German economists; and by Marx, Lassalle and other Socialists. But it seemed to him that the analytical methods of the historical economists were not

[1] For a complete bibliography of early hints and foreshadowings of mathematical treatment see the appendix to Irving Fisher's edition of Cournot's book. Fleeming Jenkin's brief paper of 1868 was not generally available until 1870, but was certainly known to Marshall about that date (see his review of Jevons in *The Academy*, 1872). Jevons' *Brief Account of a General Mathematical Theory of Political Economy* was presented to the Cambridge Meeting of the British Association in 1862 and published in the *Statistical Journal* in 1866; but this paper does not actually contain any mathematical treatment at all. Its purpose is to adumbrate the idea of "the coefficient of utility" (*i.e.* final utility), and to claim that this notion will allow the foundations of economics to be worked out as a mathematical extension of the hedonistic calculus.

[2] This was the age of Clerk Maxwell and W. K. Clifford, when the children of the Mathematical Tripos were busy trying to apply its apparatus to the experimental sciences. An extension to the moral sciences was becoming obvious. Boole and Leslie Ellis, a little earlier, were an important influence in the same direction. Alfred Marshall, in 1867, trained as he was, an intimate of W. K. Clifford, turning his attention to Ricardo, was *bound* to play about with diagrams and algebra. No other explanations or influences are needed.

[3] Particularly §§ 6–8, which were added by Mill to the third edition (1852).

[4] This account was contributed by him to a German compilation of Portraits and Short Lives of leading Economists.

[5] 1867.

always sufficiently thorough to justify their confidence that the causes which they assigned to economic events were the true causes. He thought indeed that the interpretation of the economic past was almost as difficult as the prediction of the future. The Socialists also seemed to him to underrate the difficulty of their problems, and to be too quick to assume that the abolition of private property would purge away the faults and deficiencies of human nature. . . . He set himself to get into closer contact with practical business and with the life of the working classes. On the one side he aimed at learning the broad features of the technique of every chief industry; and on the other he sought the society of trade unionists, co-operators and other working-class leaders. Seeing, however, that direct studies of life and work would not yield much fruit for many years, he decided to fill the interval by writing a separate monograph or special treatise on Foreign Trade; for the chief facts relating to it can be obtained from printed documents. He proposed that this should be the first of a group of monographs on special economic problems; and he hoped ultimately to compress these monographs into a general treatise of a similar scope to Mill's. After writing that larger treatise, but not before, he thought he might be ready to write a short popular treatise. He has never changed his opinion that this is the best order of work; but his plans were overruled, and almost inverted, by the force of circumstances. He did indeed write the first draft of a monograph on Foreign Trade; and in 1875 he visited the chief seats of industry in America with the purpose of studying the problem of Protection in a new country. But this work was suspended by his marriage; and while engaged, in conjunction with his wife, in writing a short account of the Economics of Industry, forcibly simplified for working-class readers, he contracted an illness so serious that for some time he appeared unlikely to be able to do any more hard work. A little later he thought his strength might hold out for recasting his diagrammatic illustrations of economic problems. Though urged by the late Professor Walras about 1873 to publish these, he had declined to do so; because he feared that if separated from all concrete study of actual conditions, they might seem to claim a more direct bearing on real problems than they in fact had. He began, therefore, to supply some of the requisite limitations and conditions, and thus was written the kernel of the fifth book of his *Principles*. From that kernel the present volume

was extended gradually backwards and forwards, till it reached the form in which it was published in 1890."

The fateful decision was the abandonment of the project to write "a group of monographs on special economic problems" in favour of a comprehensive treatise which should be born complete and fully-armed from the head of an economic Jove;—particularly when the special problems on which Marshall had worked first, Money and Foreign Trade, were held to occupy, logically, the latest sections of this treatise, with the result that they did not see the light for fifty years.

The evidence as to the order of his studies is as follows: In 1867 he began with the development of diagrammatic methods, with special regard to the problems of foreign trade, mainly under the influence of Ricardo and Mill. To this was added the influence of Cournot, and in a less degree that of von Thünen, by which he "was led to attach great importance to the fact that our observations of nature, in the moral as in the physical world, relate not so much to aggregate quantities, as to increments of quantities, and that in particular the demand for a thing is a continuous function, of which the 'marginal' increment is, in stable equilibrium, balanced against the corresponding increment of its cost of production. It is not easy to get a clear full view of Continuity in this aspect without the aid either of mathematical symbols or of diagrams." [1]

By 1871 his progress along these lines was considerably advanced. He was expounding the new ideas to pupils and the foundations of his diagrammatic economics had been truly laid. In that year there appeared, as the result of independent work, Jevons' *Theory of Political Economy*. The publication of this book must have been an occasion of some disappointment and annoyance to Marshall. It took the cream of novelty off the new ideas which Marshall was slowly working up, without giving them—in Marshall's judgment—adequate or accurate treatment. Nevertheless it undoubtedly gave Jevons priority of publication as regards the group of ideas connected with "marginal" (or, as Jevons called it, "final") utility. Marshall's references to the question of priority are extremely reserved. He is careful to leave Jevons' claim undisputed, whilst pointing out, indirectly, but quite clearly and definitely, that his own work owed little or nothing to Jevons.[2]

[1] Preface to 1st edition of *Principles of Economics*.

[2] See, particularly, (1) his footnote relating to his use of the term "marginal" (Preface to *Principles*, 1st ed.), where he implies that the word was suggested to

In 1872 Marshall reviewed[1] Jevons' *Political Economy* in *The Academy*. This review,[2] while not unfavourable, is somewhat cool and it points out several definite errors. "The main value of the book," it concludes, "does not lie in its more prominent theories, but in its original treatment of a number of minor points, its suggestive remarks and careful analyses. We continually meet with old friends in new dresses. . . . Thus it is a familiar truth that the total utility of any commodity is not proportional to its final degree of utility. . . . But Prof. Jevons has made this the leading idea of the costume in which he has displayed a large number of economic facts." When, however, Marshall came, in later years, to write the *Principles* his desire to be scrupulously fair to Jevons and to avoid the least sign of jealousy is very marked. It is true that in one passage[3] he writes: "It is unfortunate that here as elsewhere Jevons' delight in stating his case strongly has led him to a conclusion, which not only is inaccurate, but does mischief. . . ." But he says elsewhere:[4] "There are few writers of modern times who have approached as near to the brilliant originality of Ricardo as Jevons has done," and "There are few thinkers whose claims on our gratitude are as high and as various as those of Jevons."

In truth, Jevons' *Theory of Political Economy* is a brilliant, but hasty, inaccurate and incomplete *brochure*, as far removed

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him, as a result of reading von Thünen (though von Thünen does not actually use the word), *before* Jevons' book appeared (in his British Association paper of 1862, published in 1866, Jevons uses the term "coefficient of utility"), that, after its appearance, he temporarily deferred to Jevons and adopted his word "final" (*e.g.* in the first *Economics of Industry*), and that later on he reverted to his original phrase as being the better (it is also an almost literal equivalent of Menger's word "Grenznutzen"); and (2) his footnote to Book III. chap. vi. § 3 on Consumers' Rent (or Surplus) where he writes (my italics): "The notion of an exact measurement of Consumers' Rent was published by Dupuit in 1844. But his work was forgotten; and the first to publish a clear analysis of the relation of total to marginal (or final) utility in the English language was Jevons in 1871, when he had not read Dupuit. The notion of Consumers' Rent was suggested *to the present writer* by a study of the mathematical aspects of demand and utility under the influence of Cournot, von Thünen and Bentham."

[1] I believe that Marshall only wrote two reviews in the whole of his life—this review of Jevons in 1872, and a review of Edgeworth's *Mathematical Psychics* in 1881.

[2] The main interest of the review, which is, so far as I am aware, A. M.'s first appearance in print (at thirty years of age), is, perhaps, the many respects in which it foreshadows Marshall's permanent attitude to his subject.

[3] p. 166 (3rd ed.).

[4] In the *Note on Ricardo's Theory of Value*, which is, in the main, a reply to Jevons.

as possible from the painstaking, complete, ultra-conscientious, ultra-unsensational methods of Marshall. It brings out unforgettably the notions of final utility and of the balance between the disutility of labour and the utility of the product. But it lives merely in the tenuous world of bright ideas,[1] when we compare it with the great working machine evolved by the patient, persistent toil and scientific genius of Marshall. Jevons saw the kettle boil and cried out with the delighted voice of a child; Marshall too had seen the kettle boil and sat down silently to build an engine.

Meanwhile Marshall worked on at the generalised diagrammatic scheme, disclosed in his papers on the Pure Theory of Foreign Trade and Domestic Values. These must have been substantially complete about 1873 and were communicated to his pupils (particularly to Sir H. H. Cunynghame) about that date. They were drafted as non-consecutive[2] chapters of *The Theory of Foreign Trade, with some Allied Problems relating to the Doctrine of Laisser Faire,* which he nearly completed in 1875–7 after his return from America, embodying the results of his work from 1869 onwards.[3] In 1877 he turned aside to write the *Economics of Industry*, with Mrs. Marshall. In 1879 Henry Sidgwick, alarmed at the prospect of Marshall's right of priority being taken from him, printed them for private circulation and copies were sent to leading economists at home and abroad.[4] These chapters, which are now very scarce, have never been published to the world at large, but the most significant parts of them were incorporated in Book V. chaps. xi. and xii. of the *Principles of Economics*, and (fifty years after their origination) in Appendix J of *Money Credit and Commerce.*

Marshall's mathematical and diagrammatic exercises in Economic Theory were of such a character in their grasp, comprehensiveness and scientific accuracy and went so far beyond the "bright ideas" of his predecessors, that we may justly claim him as the founder of modern diagrammatic economics—that elegant apparatus which generally exercises a powerful attraction

[1] How disappointing are the fruits, now that we have them, of the bright idea of reducing Economics to a mathematical application of the hedonistic calculus of Bentham!

[2] The last proposition of *Foreign Trade* (which comes first) is Prop. XIII.; the first of *Domestic Values* is Prop. XVII.

[3] "Chiefly between 1869 and 1873"—see *Money Credit and Commerce*, p. 330.

[4] See the Preface to the first edition of the *Principles*. Jevons refers to them in the 2nd edition of his *Theory*, published in 1879; and Pantaleoni reproduced much of them in his *Principii di Economia Pura* (1889).

on clever beginners, which all of us use as an inspirer of, and a check on, our intuitions and as a shorthand record of our results, but which generally falls into the background as we penetrate further into the recesses of the subject. The fact that Marshall's results percolated to the outer world a drop at a time and reached in their complete form only a limited circle, lost him much international fame, which would otherwise have been his, and even, perhaps, retarded the progress of the subject. Nevertheless we can, I think, on reflection understand Marshall's reluctance to open his career with publishing his diagrammatic apparatus by itself.

For, whilst it was a necessary appurtenance of his intellectual approach to the subject, an appearance of emphasising or exalting such methods pointed right away from what he regarded, quite early in his life, as the proper attitude to economic inquiry. Moreover, Marshall, as one who had been Second Wrangler and had nourished ambitions to explore molecular physics, always felt a slight contempt from the intellectual or æsthetic point of view for the rather "potty" scraps of elementary algebra, geometry, and differential calculus which make up mathematical economics.[1] Unlike physics, for example, such parts of the bare bones of economic theory as are expressible in mathematical form are extremely easy compared with the economic interpretation of the complex and incompletely known facts of experience,[2] and lead one but a very little way towards establishing useful results.

Marshall felt all this with a vehemence which not all his pupils have shared. The preliminary mathematics was for him child's-play. He wanted to enter the vast laboratory of the

[1] Mathematical economics often exercise an excessive fascination and influence over students who approach the subject without much previous training in technical mathematics. They are so easy as to be within the grasp of almost anyone, yet do introduce the student, on a small scale, to the delights of perceiving constructions of pure form, and place toy bricks in his hands that he can manipulate for himself, which gives a new thrill to those who have had no glimpse of the sky-scraping architecture and minutely embellished monuments of modern mathematics.

[2] Professor Planck of Berlin, the famous originator of the Quantum Theory, once remarked to me that in early life he had thought of studying economics, but had found it too difficult! Professor Planck could easily master the whole corpus of mathematical economics in a few days. He did not mean that! But the amalgam of logic and intuition and the wide knowledge of facts, most of which are not precise, which is required for economic interpretation in its highest form, is, quite truly, overwhelmingly difficult for those whose gift mainly consists in the power to imagine and pursue to their furthest points the implications and prior conditions of comparatively simple facts which are known with a high degree of precision.

world, to hear its roar and distinguish the several notes, to speak with the tongues of business men, and yet to observe all with the eyes of a highly intelligent angel. So "he set himself," as is recorded in his own words above (p. 329), "to get into closer contact with practical business and with the life of the working classes."

Thus Marshall, having begun by founding modern diagrammatic methods, ended by using much self-obliteration to keep them in their proper place. When the *Principles* appeared, the diagrams were imprisoned in footnotes, or, at their freest, could but exercise themselves as in a yard within the confines of a brief Appendix. As early as 1872, in reviewing Jevons' *Political Economy*, he wrote: "We owe several valuable suggestions to the many investigations in which skilled mathematicians, English and continental, have applied their favourite method to the treatment of economical problems. But all that has been important in their reasonings and results has, with scarcely an exception, been capable of being described in ordinary language. . . . The book before us would be improved if the mathematics were omitted, but the diagrams retained." In 1881, reviewing Edgeworth's *Mathematical Psychics*, after beginning "This book shows clear signs of genius, and is a promise of great things to come," he adds, "It will be interesting, in particular, to see how far he succeeds in preventing his mathematics from running away with him, and carrying him out of sight of the actual facts of economics." And finally, in 1890, in the Preface to the *Principles*, he first emphasises his preference for diagrams over algebra, then allows the former a limited usefulness,[1] and reduces the latter to the position of a convenience for private use.[2]

In his reaction against excessive addiction to these methods, and also (a less satisfactory motive) from fear of frightening "business men" away from reading his book, Marshall may have gone too far. After all, if "there are many problems of pure theory, which no one who has once learnt to use diagrams

[1] "The argument in the text is never dependent on them; and they may be omitted; but experience seems to show that they give a firmer grasp of many important principles than can be got without their aid; and that there are many problems of pure theory, which no one who has once learnt to use diagrams will willingly handle in any other way."

[2] "The chief use of pure mathematics in economic questions seems to be in helping a person to write down quickly, shortly and exactly, some of his thoughts for his own use. . . . It seems doubtful whether anyone spends his time well in reading lengthy translations of economic doctrines into mathematics, that have not been made by himself."

will willingly handle in any other way," such diagrams must surely form a part of every advanced course in economics,[1] and they should be available for students in the fullest and clearest form possible.[2]

Whilst, however, Marshall's reluctance to print the results of his earliest investigations is mainly explained by the profundity of his insight into the true character of his subject in its highest and most useful developments, and by his unwillingness to fall short of his own ideals in what he gave to the world, it was a great pity that *The Theory of Foreign Trade, with some Allied Problems relating to the Doctrine of Laisser Faire*, did not see the light in 1877, even in an imperfect form.[3] After all, he had originally embarked on this particular inquiry because, in this case, " the chief facts relating to it can be obtained from printed documents "; and these facts, supplemented by those which he had obtained first-hand during his visit to the United States about the actual operation of Protection in a new country, might have been deemed sufficient for a monograph. The explanation is partly to be found in the fact that, when his health broke down, he believed that he had only a few years to live and that these must be given to the working out of his fundamental ideas on Value and Distribution.

We must regret still more Marshall's postponement of the publication of his *Theory of Money* until extreme old age, when time had deprived his ideas of freshness and his exposition of sting and strength. There is no part of Economics where Marshall's originality and priority of thought are more marked than here, or where his superiority of insight and knowledge over his contemporaries was greater. There is hardly any leading

[1] Marshall himself always used them freely in his lectures.

[2] Two former pupils of Marshall's, Sir Henry Cunynghame and Mr. A. W. Flux, have done something to supply the want. But we still, after fifty years, lack the ideal text-book for this purpose. Professor Bowley's lately published *Mathematical Groundwork of Economics* runs somewhat counter to Marshall's precepts by preferring, on the whole, algebraical to diagrammatic methods.

[3] Indeed, it is not very clear why he abandoned the publication of this book. Certainly up to the middle of 1877 he still intended to publish it. My father noted in his diary on Feb. 8, 1877 : " Marshall has brought me part of the MS. of a book on foreign trade that he is writing, for me to look over." Both Sidgwick and Jevons had also read it in manuscript, and had formed a high opinion of it, as appears from their testimonials written in June, 1877, when Marshall was applying for the Bristol appointment. Sidgwick wrote : " I doubt not that his forthcoming work, of which the greater part is already completed, will give him at once a high position among living English economists." And Jevons : " Your forthcoming work on the theory of Foreign Trade is looked forward to with much interest by those acquainted with its contents, and will place you among the most original writers on the science."

feature in the modern Theory of Money which was not known to Marshall forty years ago. Here too was a semi-independent section of the subject ideally suited to separate treatment in a monograph. Yet apart from what is embedded in his evidence before Royal Commissions and occasional articles, not one single scrap was given to the world in his own words and his own atmosphere at the right time. Since *Money* was from the early seventies onwards one of his favourite topics for lectures, his main ideas became known to pupils in a general way,[1] with the result that there grew up at Cambridge an oral tradition, first from Marshall's own lectures and since his retirement from those of Professor Pigou, different from, and (I think it may be claimed) superior to, anything that could be found in printed books until recently.[2] It may be convenient at this point to attempt a brief summary of Marshall's main contributions to Monetary Theory.

Marshall printed nothing whatever on the subject of Money[3] previously to the Bimetallic controversy, and even then he waited a considerable time before he intervened. His first serious contribution to the subject was contained in his answers to a questionnaire printed by the Royal Commission on the Depression of Trade and Industry in 1886. This was followed by his article on "Remedies for Fluctuations of General Prices" in the *Contemporary Review* for March 1887; and a little later by his voluminous evidence before the Gold and Silver Commission in 1887 and 1888. In 1899 came his evidence before the Indian Currency Committee. But his theories were not expounded in a systematic form until the appearance of *Money Credit and Commerce* in 1923. By this date nearly all his main ideas had found expression in the works of others. He had passed his eightieth year; his strength was no longer equal to much more than piecing together earlier fragments; and its jejune treatment, carefully avoiding difficulties and complications, yields the mere shadow of what he had had it in him to bring forth twenty[4] or (better) thirty years earlier. It happens,

[1] His unsystematic method of lecturing prevented the average, and even the superior, student from getting down in his notes anything very consecutive or complete.

[2] Professor Irving Fisher has been the first, in several instances, to publish in book-form ideas analogous to those which had been worked out by Marshall at much earlier dates.

[3] The *Economics of Industry* (1879) was not intended to cover this part of the subject and contains only a brief reference to it. The references to the Trade Cycle in this book are, however, important.

[4] I can speak on this matter from personal recollection, since it was only a little later than this (in 1906) that I attended his lectures on Money.

however, that the earliest extant manuscript of Marshall's, written about 1871, deals with his treatment of the Quantity Theory. It is a remarkable example of the continuity of his thought from its first beginnings between 1867 and 1877, that the whole of the substance of Book I. chapter iv. of his *Money Credit and Commerce* is to be found here, worked out with fair completeness and with much greater strength of exposition and illustration than he could manage fifty years later. I have no evidence at what date he had arrived at the leading ideas underlying his *Contemporary Review* article or his evidence before the Gold and Silver Commission.[1] But the passages about Commercial Crises in the *Economics of Industry*, from which he quoted freely in his reply to the Trade Depression Commissioners, show that he was on the same lines of thought in 1879. The following are the most important and characteristic of Marshall's original contributions to this part of Economics.

(1) *The exposition of the Quantity Theory of Money as a part of the General Theory of Value.* He always taught that the value of money is a function of its supply on the one hand, and the demand for it, on the other, as measured by "the average stock of command over commodities which each person cares to keep in a ready form." He went on to explain how each individual decides how much to keep in a ready form as the result of a *balance* of advantage between this and alternative forms of wealth. "The exchange value of the whole amount of coin in the Kingdom," he wrote in the manuscript of 1871 mentioned above, "is just equal to that of the whole amount of the commodities over which the members of the community have decided to keep a command in this ready form. Thus with a silver currency if we know the number of ounces of silver in circulation we can determine what the value of one ounce of silver will be in terms of other commodities by dividing the value of above given amount of commodities by the number of ounces. Suppose that on the average each individual in a community chose to keep command over commodities in a ready form to the extent of one-tenth of his year's income. The money, supposed in this case exclusively silver, in the Kingdom will be equal in value to one-tenth of the annual income of the kingdom. Let their habits alter, each

[1] In expounding his "Symmetallism" to the Commissioners he said (Q. 9837): "I have a bimetallic hobby of my own. . . . I have had it by me now for more than 10 years"—which brings this particular train of thought back to before 1878.

person being willing, for the sake of gain in other ways, to be to a greater extent without the power of having each want satisfied as soon as it arises. Let on the average each person choose to keep command over commodities in a ready form only to the extent of a twentieth part of his income. So much silver as before not being wanted at the old value, it will fall in value. It would accordingly be more used in manufactures, while its production from the mines would be checked. . . ." [1] He points out that the great advantage of this method of approach is that it avoids the awkward conception of "rapidity of circulation" (though he is able to show the exact logical relation between the two conceptions): "When, however, we try to establish a connection between 'the rapidity of circulation' and the value of money, it introduces grave complications. Mr. Mill is aware of the evil (*Political Economy*, Book III. chap. viii. § 3, latter part), but he has not pointed the remedy." [2] Marshall also expounded long ago the way in which distrust of a currency raises prices by diminishing the willingness of the public to hold stocks of it—a phenomenon to which recent events have now called everyone's attention; and he was aware that the fluctuation in the price level, which is an accompaniment of the trade cycle, corresponds to a fluctuation in the volume of "ready command" [3] which the public desire to hold.

(2) *The distinction between the "real" rate of interest and the "money" rate of interest, and the relevance of this to the credit cycle, when the value of money is fluctuating.* The first clear exposition of this is, I think, that given in the *Principles* (1890), Book VI. chap. vi. (concluding note).[4]

(3) *The causal train by which, in modern credit systems, an additional supply of money influences prices, and the part played by the rate of discount.* The *locus classicus* for an account of this, and the only detailed account for many years to which students could be referred, is Marshall's Evidence before the Gold and Silver Commission, 1887 (particularly the earlier part of his evidence), supplemented by his Evidence before the Indian Currency Committee, 1899. It was an odd state of affairs

[1] When I attended his lectures in 1906 he used to illustrate this theory with some very elegant diagrams.

[2] This extract, as well as that given above, is from the manuscript of 1871.

[3] This is Marshall's phrase for what I have called "real balances."

[4] In repeating the substance of this Note to the Indian Currency Committee (1899) he refers in generous terms to the then-recent elaboration of the idea in Professor Irving Fisher's *Appreciation and Interest* (1896). See also for some analogous ideas Marshall's first *Economics of Industry* (1879), Book III. chap. i. §§ 5, 6.

that one of the most fundamental parts of Monetary Theory should, for about a quarter of century, have been available to students nowhere except embedded in the form of question-and-answer before a Government Commission interested in a transitory practical problem.

(4) *The enunciation of the "Purchasing Power Parity" Theory as determining the rate of exchange between countries with mutually inconvertible currencies.* In substance this theory is due to Ricardo, but Professor Cassel's restatement of it in a form applicable to modern conditions was anticipated by Marshall in the memorandum [1] appended to his Evidence before the Gold and Silver Commission (1888). It also had an important place in the conclusions which he laid before the Indian Currency Committee in 1899. The following from an abstract of his opinions handed in by Marshall to the Gold and Silver Commission gives his theory in a nutshell: "Let B have an inconvertible paper-currency (say roubles). In each country prices will be governed by the relation between the volume of the currency and the work it has to do. The gold price of the rouble will be fixed by the course of trade just at the ratio which gold prices in A bear to rouble prices in B (allowing for cost of carriage)."

(5) *The "chain" method of compiling index-numbers.* The first mention of this method is in a footnote to the last section (entitled *How to Estimate a Unit of Purchasing Power*) of his "Remedies for Fluctuations of General Prices" (1887).

(6) *The proposal of paper currency for the circulation (on the lines of Ricardo's* "Proposals for an Economical and Secure Currency") *based on gold-and-silver symmetallism as the standard.* This suggestion is first found in his reply to the Commissioners on Trade Depression in 1886. He argued that ordinary bi-metallism would always tend to work out as alternative-metallism. "I submit," he went on, "that, if we are to have a great disturbance of our currency for the sake of bi-metallism, we ought to be sure that we get it. . . . My alternative scheme is got from his (Ricardo's) simply by wedding a bar of silver

[1] Entitled *Memorandum as to the Effects which Differences between the Currencies of different Nations have on International Trade.* His illustrations are in terms of English gold and Russian paper roubles; and alternatively of English gold and Indian silver. He argues that a prolonged departure from purchasing power parity (he does not use this term) is not likely except when there is "a general distrust of Russia's economic future, which makes investors desire to withdraw their capital from Russia,"—a remarkable prevision of recent events. A portion of this Memorandum was reproduced as the first part of Appendix G of *Money Credit and Commerce.*

of, say, 2,000 grammes to a bar of gold of, say, 100 grammes; the government undertaking to be always ready to buy or sell a wedded pair of bars for a fixed amount of currency. . . . This plan could be started by any nation without waiting for the concurrence of others." He did not urge the immediate adoption of this system, but put it forward as being at least preferable to bi-metallism. The same proposal was repeated in 1887 in his article on "Remedies for Fluctuations of General Prices," and in 1888 in his Evidence before the Gold and Silver Commission.[1]

(7) *The proposal of an official Tabular Standard for optional use in the case of long contracts.* This proposal first appears in an appendix to a paper on remedies for the discontinuity of employment, which Marshall read at the "Industrial Remuneration Conference" in 1885.[2] He repeated, and added to, what he had said there, in his Reply to the Commissioners on Trade Depression in 1886. "A great cause of the discontinuity of industry," he wrote, "is the want of certain knowledge as to what a pound is going to be worth a short time hence. . . . This serious evil can be much diminished by a plan which economists have long advocated. In proposing this remedy I want government to help business, though not to do business. It should publish tables showing as closely as may be the changes in the purchasing power of gold, and should facilitate contracts for payments to be made in terms of units of fixed purchasing power. . . . The unit of constant general purchasing power would be applicable, at the free choice of both parties concerned, for nearly all contracts for the payment of interest, and for the repayment of loans; and for many contracts for rent, and for wages and salaries. . . . I wish to emphasise the fact that this proposal is independent of the form of our currency, and does not ask for any change in it. I admit that the plan would seldom be available for the purposes of international trade. But its importance as a steadying influence to our home trade could be so great, and its introduction would be so easy and so free from the evils which generally surround the interference of Government in business, that I venture to urge strongly its claims on your immediate attention." This important proposal was further developed in Marshall's remarkable essay on "Remedies for Fluctuations of General Prices," which has been mentioned above. The first three sections of this essay

[1] See also *Money Credit and Commerce*, pp. 64–67.

[2] Entitled: "How far do remediable causes influence prejudicially (*a*) the continuity of employment, (*b*) the rates of wages?"

are entitled: I. *The Evils of a Fluctuating Standard of Value;* II. *The Precious Metals cannot afford a good Standard of Value;* III. *A Standard of Value independent of Gold and Silver.* Marshall had a characteristic habit in all his writings of reserving for footnotes what was most novel or important in what he had to say;[1] and the following is an extract from a footnote to this essay: "Every plan for regulating the supply of the currency, so that its value shall be constant, must, I think, be national and not international. I will indicate briefly two such plans, though I do not advocate either of them. On the first plan the currency would be inconvertible. An automatic Government Department would buy Consols for currency whenever £1 was worth more than a unit, and would sell Consols for currency whenever it was worth less. . . . The other plan is that of a convertible currency, each £1 note giving the right to demand at a Government Office as much gold as at that time had the value of half a unit together with as much silver as had the value of half a unit."[2]

The *Economist* mocked at Symmetallism and the optional Tabular Standard; and Marshall, always a little over-afraid of being thought unpractical or above the head of the "business man" (that legendary monster), did not persevere.[3]

V

I promised, above, that I would endeavour to set forth the reasons or the excuses for the delay in the publication of Marshall's methods and theories concerning Diagrammatic Methods, the Theory of Foreign Trade, and the Principles of Money and Credit. I think that the reasons, some of which apply to all periods of his life, were partly good and partly bad. Let us take the good ones first.

[1] It would almost be better to read the footnotes and appendices of Marshall's big volumes and omit the text, rather than *vice versa*.

[2] The last part of this sentence presumes the adoption of Symmetallism. The second plan is akin to Prof. Irving Fisher's "Compensated Dollar."

[3] In December 1923, after I had sent him my *Tract on Monetary Reform* he wrote to me: "As years go on it seems to become ever clearer that there ought to be an international currency; and that the—in itself foolish—superstition that gold is the 'natural' representative of value has done excellent service. I have appointed myself amateur currency-mediciner; but I cannot give myself even a tolerably good testimonial in that capacity. And I am soon to go away; but, if I have opportunity, I shall ask new-comers to the celestial regions whether you have succeeded in finding a remedy for currency-maladies." As regards the choice between the advantages of a national and of an international currency I think that what he wrote in 1887 was the truer word, and that a constant-value currency must be, in the first instance at least, a national currency.

Marshall, as already pointed out above, arrived very early at the point of view that the bare bones of economic theory are not worth much in themselves and do not carry one far in the direction of useful, practical conclusions. The whole point lies in applying them to the interpretation of current economic life. This requires a profound knowledge of the actual facts of industry and trade. But these and the relation of individual men to them are constantly and rapidly changing. Some extracts from his Inaugural lecture at Cambridge [1] will indicate his position :

> "The change that has been made in the point of view of Economics by the present generation is due to the discovery that man himself is in a great measure a creature of circumstances and changes with them. The chief fault in English economists at the beginning of the century was not that they ignored history and statistics, but that they regarded man as so to speak a constant quantity, and gave themselves little trouble to study his variations. They therefore attributed to the forces of supply and demand a much more mechanical and regular action than they actually have. Their most vital fault was that they did not see how liable to change are the habits and institutions of industry. But the Socialists were men who had felt intensely, and who knew something about the hidden springs of human action of which the economists took no account. Buried among their wild rhapsodies there were shrewd observations and pregnant suggestions from which philosophers and economists had much to learn. Among the bad results of the narrowness of the work of English economists early in the century, perhaps the most unfortunate was the opportunity which it gave to sciolists to quote and misapply economic dogmas. Ricardo and his chief followers did not make clear to others, it was not even quite clear to themselves, that what they were building up was not universal truth, but machinery of universal application in the discovery of a certain class of truths. While attributing high and transcendent universality to the central scheme of economic reasoning, I do not assign any universality to economic dogmas. It is not a body of concrete truth, but an engine for the discovery of concrete truth." [2]

[1] *The Present Position of Economics*, 1885.

[2] This is a portmanteau quotation,—I have run together non-consecutive passages. Parts of this lecture were transcribed almost verbatim in the *Principles*, Book I. chap. iv.

Holding these views and living at a time of reaction against economists when the faults of his predecessors, to which he draws attention above, were doing their maximum amount of harm, he was naturally reluctant to publish the isolated apparatus of economics, divorced from its appropriate applications. Diagrams and pure theory by themselves might do more harm than good, by increasing the confusion between the objects and methods of the mathematical sciences and those of the social sciences, and would give what he regarded as just the wrong emphasis. In publishing his intellectual exercises without facing the grind of discovering their points of contact with the real world, he would be following and giving bad example. On the other hand, the relevant facts were extremely hard to come by—much harder than now. The progress of events in the 'seventies and 'eighties, particularly in America, was extraordinarily rapid; and organised sources of information, of which there are now so many, scarcely existed. In the twenty years from 1875 to 1895 he was, in fact, greatly increasing his command over real facts and his power of economic judgment, and the work which he could have published between 1875 and 1885, would have been much inferior to what he was capable of between 1885 and 1895.

The other valid reason was a personal one. At the critical moment of his life his health was impaired. After health was restored, the preparation of lectures and the time he devoted to his pupils made big interruptions in the writing of books. He was too meticulous in his search for accuracy, and also for conciseness of expression, to be a ready writer. He was particularly unready in the business of fitting pieces into a big whole and of continually re-writing them in the light of their reactions on and from the other pieces. He was always trying to write big books, yet lacked the power of rapid execution and continuous concentration (such as J. S. Mill had) and that of continuous artistic sensibility to the whole (such as Adam Smith had) which are necessary for the complete success of a Treatise.

We are now approaching in our explanations what we must admit as bad reasons. Given his views as to the impossibility of any sort of finality in Economics and as to the rapidity with which events change, given the limitations of his own literary aptitudes and of his leisure for book-making, was it not a fatal decision to abandon his first intention of separate, independent monographs in favour of a great Treatise? I think that it was, and that certain weaknesses contributed to it.

Marshall was conscious of the great superiority of his powers

over those of his surviving contemporaries. In his Inaugural lecture of 1885 he said: "Twelve years ago England possessed perhaps the ablest set of economists that there have ever been in a country at one time. But one after another there have been taken from us Mill, Cairnes, Bagehot, Cliffe Leslie, Jevons, Newmarch and Fawcett." There was no one left who could claim at that date to approach Marshall in stature. To his own pupils, who were to carry on the Economics of the future, Marshall was ready to devote time and strength. But he was too little willing to cast his half-baked bread on the waters, to trust in the efficacy of the co-operation of many minds, and to let the big world draw from him what sustenance it could. Was he not attempting, contrary to his own principles, to achieve an impossible finality? An Economic Treatise may have great educational value. Perhaps we require one treatise, as a *pièce de resistance*, for each generation. But in view of the transitory character of economic facts, and the bareness of economic principles in isolation, does not the progress and the daily usefulness of economic science require that pioneers and innovators should eschew the Treatise and prefer the pamphlet or the monograph? I depreciated Jevons' *Political Economy* above on the ground that it was no more than a brilliant brochure. Yet it was Jevons' willingness to spill his ideas, to flick them at the world, that won him his great personal position and his unrivalled power of stimulating other minds. Every one of Jevons' contributions to Economics was in the nature of a pamphlet. Malthus spoilt the *Essay on Population* when, after the first edition, he converted it into a Treatise. Ricardo's greatest works were written as ephemeral pamphlets. Did not Mill, in achieving by his peculiar gifts a successful Treatise, do more for pedagogics than for science, and end by sitting like an Old Man of the Sea on the voyaging Sinbads of the next generation?[1] Economists must leave to Adam Smith alone the glory of the Quarto, must pluck the day, fling pamphlets into the wind, write always *sub specie temporis*, and achieve immortality by accident, if at all.

Moreover, did not Marshall, by keeping his wisdom at home until he could produce it fully clothed, mistake, perhaps, the true nature of his own special gift? "Economics," he said in the passage quoted above, "is not a body of concrete truth, but an engine for the discovery of concrete truth." This engine, as

[1] How Jevons hated Mill, just because he had been compelled to lecture on Mill's *Political Economy* as a Gospel Text-book!

we employ it to-day, is largely Marshall's creation. He put it in the hands of his pupils long before he offered it to the world. The building of this engine was the essential achievement of Marshall's peculiar genius. Yet he hankered greatly after the "concrete truth" which he had disclaimed and for the discovery of which he was not specially qualified. I have very early memories, almost before I knew what Economics meant, of the sad complaints of my father, who had been able to observe as pupil and as colleague the progress of Marshall's thought almost from the beginning, of Marshall's obstinate refusal to understand where his special strength and weakness really lay, and of how his unrealisable ambitions stood in the way of his giving to the world the true treasures of his mind and genius. Economics all over the world might have progressed much faster and Marshall's authority and influence would have been far greater, if his temperament had been a little different.

Two other characteristics must be mentioned. First, Marshall was too much afraid of being wrong, too thin-skinned towards criticism, too easily upset by controversy even on matters of minor importance. An extreme sensitiveness deprived him of magnanimity towards the critic or the adversary. This fear of being open to correction by speaking too soon aggravated other tendencies. Yet after all there is no harm in being sometimes wrong—especially if one is promptly found out. Nevertheless this quality was but the defect of the high standard he never relaxed—which touched his pupils with awe—of scientific accuracy and truth.

Second, Marshall was too anxious to do good. He had an inclination to undervalue those intellectual parts of the subject which were not *directly* connected with human well-being or the condition of the working classes or the like, although *indirectly* they might be of the utmost importance, and to feel that when he was pursuing them he was not occupying himself with the Highest. It came out of the conflict, already remarked, between an intellect, which was hard, dry, critical, as unsentimental as you could find, with emotions and, generally unspoken, aspirations of quite a different type. When his intellect chased diagrams and Foreign Trade and Money, there was an evangelical moraliser of an imp somewhere inside him, that was so ill-advised as to disapprove. Near the end of his life, when the intellect grew dimmer and the preaching imp could rise nearer to the surface to protest against its lifelong servitude, he once said: "If I had to live my life over again

I should have devoted it to psychology. Economics has too little to do with ideals. If I said much about them I should not be read by business men." But these notions had always been with him. He used to tell the following story of his early life: "About the time that I first resolved to make as thorough a study as I could of Political Economy (the word Economics was not then invented) I saw in a shop-window a small oil painting [of a man's face with a strikingly gaunt and wistful expression, as of one 'down and out'] and bought it for a few shillings. I set it up above the chimney-piece in my room in college and thenceforward called it my patron saint, and devoted myself to trying how to fit men like that for heaven. Meanwhile I got a good deal interested in the semi-mathematical side of pure Economics, and was afraid of becoming a mere thinker. But a glance at my patron saint seemed to call me back to the right path. That was particularly useful after I had been diverted from the study of ultimate aims to the questions about Bimetallism, etc., which at one time were dominant. I despised them, but the 'instinct of the chase' tempted me towards them." This was the defect of that other great quality of his, which always touched his pupils—his immense disinterestedness and public spirit.

VI

At any rate, in 1877 Marshall turned aside to help his wife with the *Economics of Industry* (published in 1879), designed as a manual for Cambridge University Extension lecturers, which, as it progressed, became more and more his work. In later years Marshall grew very unfriendly to the little book. After the publication of the *Principles* he suppressed it and replaced it in 1892 with an almost wholly different book under the same title, which was mainly an abridgment of the *Principles* and "an attempt to adapt it to the needs of junior students." Marshall's feelings were due, I think, to the fact that his theory of value, which was here first published to the world, was necessarily treated in a brief and imperfect manner, yet remained for eleven years all that the outside world had to judge from. His controversies in the *Quarterly Journal of Economics* in 1887 and 1888[1] with American economists who had read the little book accentuated this feeling. He also revolted later on from the conception of Economics as a subject capable of being treated in a light and simple manner for elementary students by half-instructed

[1] See the Bibliographical Note.

Extension lecturers[1] aided by half-serious books. "This volume," he wrote in 1910 to a Japanese translator of the 1879 book, "was begun in the hope that it might be possible to combine simplicity with scientific accuracy. But though a simple book can be written on selected topics, the central doctrines of Economics are not simple and cannot be made so."

Yet these sentiments do a real injustice to the book. It won high praise from competent judges and was, during the whole of its life, much the best little text-book available.[2] If we are to have an elementary text-book at all, this one was probably, in relation to its contemporaries and predecessors, the best thing of the kind ever done—much better than the primers of Mrs. Fawcett or Jevons or any of its many successors. Moreover, the latter part of Book III. on Trade Combinations, Trade Unions, Trade Disputes and Co-operation was the first satisfactory treatment on modern lines of these important topics.

After this volume[3] was out of the way, Marshall's health was at its worst. When in 1881 he went abroad to recuperate, his mind did not return to Money or to Foreign Trade, but was concentrated on the central theories which eventually appeared in the *Principles*.[4] Subject to the successive interruptions of his Oxford appointment, his removal to Cambridge, the preparation of his lectures there, his incursion into the Bimetallic controversy and his Evidence before the Gold and Silver Commission, the next nine years were spent on the preparation of this book.

Marshall intended at first to cover the whole field of Economics in a single volume. His theory of Distribution was taking shape in 1883 and 1884.[5] In the summer of 1885 (in the Lakes), the first of his Cambridge Long Vacations, the volume began to assume its final form. "The work done during this year," he

[1] So far, however, from being out of sympathy with the ideals underlying the Extension Movement (or its modern variant the W.E.A.), Marshall had been connected with it from the beginning, and had himself given Extension Courses at Bristol for five years.

[2] So much did the public like it, that 15,000 copies had been sold before it was suppressed.

[3] Its preface mentioned a forthcoming companion volume on the "Economics of Trade and Finance," which was never written.

[4] Mrs. Marshall writes: "Book III. on Demand was largely thought out and written on the roof at Palermo, Nov. 1881–Feb. 1882."

[5] It appears in outline in an article written in about two days in the summer of 1884, when he was staying at Rocquami Bay, Guernsey. This was published in the *Co-operative Annual* for 1885 under the title "Theories and Facts about Wages," and was reprinted in the same year as an appendix to his paper read before the Industrial Remuneration Conference.

wrote,[1] "was not very satisfactory, partly because I was gradually outgrowing the older and narrower conception of my book, in which the abstract reasoning which forms the backbone of the science was to be made prominent, and had not yet mustered courage to commit myself straight off to a two-volume book which should be the chief product (as gradually improved) of my life's work." [2] In 1886, "my chief work was recasting the plan of my book. This came to a head during my stay at Sheringham near Cromer in the summer. I then put the contents of my book into something like their final form, at least so far as the first volume is concerned. And thenceforward for the first time I began to try to put individual chapters into a form in which I expected them to be printed." In 1887 (at Guernsey), "I did a great deal of writing at my book; and having arranged with Macmillan for its publication, I began just at the end of this academic year to send proofs to the printers: all of it except about half of Book VI. being typewritten in a form not ready for publication, but ready to be put into a form for publication— I mean the matter was nearly all there and the arrangement practically settled." In 1888, "by the end of the Long Vacation I had got Book V. at the printer's, Book IV. being almost out of my hands. Later on I decided to bring before the Book on Normal Value or Distribution and Exchange a new Book on Cost of Production further considered,[3] putting into it (somewhat amplified) discussions which I had intended to keep for the later part of the Book on Normal Value. That Book now became Book VII. This decision was slowly reached, and not much further progress was made during this Calendar year." "During the first four months of 1889 I worked at Book VI., finishing the first draft of the first four chapters of it, and working off Book V. Meanwhile I had paid a good deal of attention to the Mathematical Appendix and got a good part of that into print. The Long Vacation, of which eight weeks were spent at Bordeaux Harbour, was occupied chiefly with Book VI. chaps. v. and vi., and Book VII. chaps. i.–v." The work was now pushed rapidly to a conclusion and was published in July 1890.

By 1890 Marshall's fame stood high,[4] and the *Principles of*

[1] The following extracts are from some notes he put together summarising his work from 1885 to 1889.

[2] Also, "Work during the summer a good deal interrupted by making plans for my new house in Madingley Road."

[3] After the first edition, this Book was incorporated in Book V. So that *Value* again became Book VI.

[4] "Rarely in modern times," said the *Scotsman*, "has a man achieved such a high reputation as an authority on such a slender basis of published work."

Economics,[1] Vol. I.,[2] was delivered into an expectant world. Its success was immediate and complete. The book was the subject of leading articles and full-dress reviews throughout the Press. The journalists could not distinguish the precise contributions and innovations which it contributed to science; but they discerned with remarkable quickness that it ushered in a new age of economic thought. " It is a great thing," said the *Pall Mall Gazette*, " to have a Professor at one of our old Universities devoting the work of his life to recasting the science of Political Economy as the Science of Social Perfectibility." The New Political Economy had arrived, and the Old Political Economy, the dismal science, " which treated the individual man as a purely selfish and acquisitive animal, and the State as a mere conglomeration of such animals," had passed away.[3] " It will serve," said the *Daily Chronicle*, " to restore the shaken credit of political economy, and will probably become for the present generation what Mill's *Principles* was for the last." " It has made almost all other accounts of the science antiquated or obsolete," said the *Manchester Guardian*. " It is not premature to predict that Professor Marshall's treatise will form a landmark in the development of political economy, and that its influence on the direction and temper of economic inquiries will be wholly good." These are samples from a general chorus.

It is difficult for those of us who have been brought up entirely under the influences of Marshall and his book to appreciate the position of the science in the long interregnum between Mill's *Principles of Political Economy* and Marshall's *Principles of Economics*, or to define just what difference was made by the publication of the latter. The following is an attempt, with help from notes supplied by Professor Edgeworth, to indicate some of its more striking contributions to knowledge.[4]

(1) The unnecessary controversy, caused by the obscurity of

[1] This was the first book in England to be published at a *net* price, which gives it an important place in the history of the publishing trade. (See Sir F. Macmillan's *The Net Book Agreement*, 1899, pp. 14–16.) The dates of the successive editions are given in the Bibliographical Note. 37,000 copies have been sold up to the present time.

[2] The suffix Vol. I. was not dropped until the sixth edition in 1910.

[3] Not that Old P.E. was really thus, but this was the journalists' way of expressing the effect which Marshall's outlook made on them.

[4] Including hints and anticipations in earlier writings; as Professor Edgeworth wrote, reviewing the first edition of the *Principles* (*The Academy*, Aug. 30, 1890): " Some of Professor Marshall's leading ideas have been more or less fully expressed in his earlier book (the little *Economics of Industry*), and in certain papers which, though unpublished, have not been unknown. The light of dawn was diffused before the orb of day appeared above the horizon."

Ricardo and the rebound of Jevons, about the respective parts played by Demand and by Cost of Production in the determination of Value was finally cleared up. After Marshall's analysis there was nothing more to be said. "The new light thrown on Cost of Production," Prof. Edgeworth writes, "enabled one more clearly to discern the great part which it plays in the determination of value; that the classical authors had been rightly guided by their intuitions, as Marshall has somewhere said, when they emphasised the forces of Supply above those of Demand. The rehabilitation of the older writers—much depreciated by Jevons, Böhm-Bawerk and others in the 'seventies and 'eighties of last century—produced on the reviewer of the first edition an impression which is thus expressed: 'The mists of ephemeral criticism are dispelled. The eternal mountains reappear in their natural sublimity, contemplated from a kindred height.' "

(2) The general idea, underlying the proposition that Value is determined at the equilibrium point of Demand and Supply, was extended so as to discover a whole Copernican system, by which all the elements of the economic universe are kept in their places by mutual counterpoise and interaction.[1] The general theory of economic equilibrium was strengthened and made effective as an organon of thought by two powerful subsidiary conceptions—*the Margin* and *Substitution*. The notion of the Margin was extended beyond Utility to describe the equilibrium point in given conditions of any economic factor which can be regarded as capable of small variations about a given value, or in its functional relation to a given value. The notion of Substitution was introduced to describe the process by which Equilibrium is restored or brought about. In particular the idea of *Substitution at the Margin*, not only between alternative objects of consumption, but also between the factors of production, was extraordinarily fruitful in results. Further, there is "the double relation in which the various agents of production stand to one another. On the one hand they are often rivals for employment; any one that is more efficient than another in proportion to its cost tending to be substituted for it, and thus limiting the demand price for the other. And on the other hand, they all constitute the field of employment for each other; there is no field of employment for any one, except in so

[1] Already in 1872, in his review of Jevons, Marshall was in possession of the idea of the mutually dependent positions of the economic factors. "Just as the motion of every body in the solar system," he there wrote, "affects and is affected by the motion of every other, so it is with the elements of the problem of political economy."

far as it is provided by the others: the national dividend which is the joint product of all, and which increases with the supply of each of them, is also the sole source of demand for each of them."[1]

This method allowed the subsumption of wages and profits under the general laws of value, supply and demand,—just as previously the theory of money had been so subsumed. At the same time the peculiarities in the action of demand and supply which determine the wages of the labourer or the profits of the employer were fully analysed.

(3) The explicit introduction of the element of Time as a factor in economic analysis is mainly due to Marshall. The conceptions of the " long " and " short " period are his, and one of his objects was to trace " a continuous thread running through and connecting the applications of the general theory of equilibrium of demand and supply to different periods of time."[2] Connected with these there are further distinctions, which we now reckon essential to clear thinking, which are first explicit in Marshall—particularly those between " external " and " internal " economies[3] and between " prime " and " supplementary " cost. Of these pairs the first was, I think, a complete novelty when the *Principles* appeared; the latter, however, already existed in the vocabulary of manufacture, if not in that of economic analysis.

By means of the distinction between the long and the short period, the meaning of " normal " value was made precise; and with the aid of two further characteristically Marshallian conceptions—Quasi-Rent and the Representative Firm—the doctrine of Normal Profit was evolved.

All these are path-breaking ideas which no one who wants to think clearly can do without. Nevertheless this is the quarter in which, in my opinion, the Marshall analysis is least complete and satisfactory, and where there remains most to do. As he says himself in the Preface to the first edition of the *Principles*, the element of time " is the centre of the chief difficulty of almost every economic problem."

(4) The special conception of Consumers' Rent or Surplus, which was a natural development of Jevonian ideas, has perhaps proved less fruitful of practical results than seemed likely at

[1] *Principles*, Book VI. chap. xi. § 5. [2] *Ibid.*, Book VI. chap. xi. § 1.

[3] The vital importance of this distinction to a correct theory of Equilibrium under conditions of increasing return is, of course, now obvious. But it was not so before the *Principles*.

first.[1] But one could not do without it as part of the apparatus of thought, and it is particularly important in the *Principles* because of the use of it (in Prof. Edgeworth's words) "to show that *laissez-faire*, the maximum of advantage attained by unrestricted competition, is not necessarily the greatest possible advantage attainable." Marshall's proof that *laissez-faire* breaks down in certain conditions *theoretically*, and not merely practically, regarded as a principle of maximum social advantage, was of great philosophical importance. But Marshall does not carry this particular argument very far,[2] and the further exploration of that field has been left to Marshall's favourite pupil and successor, Professor Pigou, who has shown in it what a powerful engine for cutting a way in tangled and difficult country the Marshall analysis affords in the hands of one who has been brought up to understand it well.

(5) Marshall's analysis of Monopoly should also be mentioned in this place; and perhaps his analysis of increasing return, especially where external economies exist, belongs better here than where I have mentioned it above.

Marshall's theoretical conclusions in this field and his strong sympathy with socialistic ideas were compatible, however, with an old-fashioned belief in the strength of the forces of competition. Professor Edgeworth writes: "I may record the strong impression produced on me the first time I met Marshall—far back in the 'eighties, I think—by his strong expression of the conviction that Competition would for many a long day rule the roast as a main determinant of value. Those were not his words, but they were of a piece with the dictum in his article on *The Old Generation of Economists and the New*:[3] 'When one person is willing to sell a thing at a price which another is willing to pay for it, the two manage to come together in spite of prohibitions of

[1] Nevertheless, Professor Edgeworth points out, even "before the publication of the *Principles* Marshall quite understood—what the critics of the doctrine in question have not generally understood, and even some of the defenders have not adequately emphasised—that the said measurement applies accurately only to transactions which are on such a scale as not to disturb the marginal value of money."

[2] *Industry and Trade*, however, is partly devoted to illustrating it. "The present volume," he says in the Preface to that book, "is in the main occupied with the influences which still make for sectional and class selfishness: with the limited tendencies of self-interest to direct each individual's action on those lines, in which it will be most beneficial to others; and with the still surviving tendencies of associated action by capitalists and other business men, as well as by employees, to regulate output, and action generally, by a desire for sectional rather than national advantage."

[3] *Quarterly Journal of Economics*, 1896, Vol. XI., p. 129.

King or Parliament or of the officials of a Trust or Trade-Union.' "

(6) In the provision of terminology and apparatus to aid thought I do not think that Marshall did economists any greater service than by the explicit introduction of the idea of "elasticity." Book III. chap. iii. of the first edition of the *Principles*, which introduces the definition of "Elasticity of Demand,"[1] is virtually the earliest treatment[2] of a conception without the aid of which the advanced theory of Value and Distribution can scarcely make progress. The notion that demand may respond to a change of price to an extent that may be either more or less than in proportion had been, of course, familiar since the discussions at the beginning of the nineteenth century about the relation between the supply and the price of wheat.[3] Indeed it is rather remarkable that the notion was not more clearly disentangled either by Mill or by Jevons.[4] But it was so. And the concept $e = \frac{dx}{x} \div -\frac{dy}{y}$ is wholly Marshall's.

The way in which Marshall introduces Elasticity, without any suggestion that the idea is novel, is remarkable and characteristic. The field of investigation opened up by this instrument of thought is again one where the full fruits have been reaped by Professor Pigou rather than by Marshall himself.

(7) The historical introduction to the *Principles* deserves some comment. In the first edition Book I. includes two chapters entitled "The Growth of Free Industry and Enterprise." In the latest editions most of what has been retained out of these chapters

[1] Supplemented by the mathematical note in the Appendix.

[2] Strictly, the earliest reference to "elasticity" is to be found in Marshall's contribution "On the Graphic Method of Statistics" to the Jubilee Volume of the *Royal Statistical Society* (1885), p. 260. But it is introduced there only in a brief concluding note, and mainly with the object of showing that a simple diagrammatic measure of elasticity is furnished by the ratio between the two sections into which that part of the tangent to the demand curve which lies between the axes is divided by the point of contact. Mrs. Marshall tells me that he hit on the notion of elasticity, as he sat on the roof at Palermo shaded by the bath-cover in 1881, and was highly delighted with it.

[3] Mill quotes Tooke's *History of Prices* in this connection.

[4] Professor Edgeworth in his article on "Elasticity" in Palgrave's *Dictionary* refers particularly to Mill's *Political Economy*, Book III. chap. ii. § 4, and chap. viii. § 2, as representative of the pre-Marshall treatment of the matter. The first of these passages points out the varying proportions in which demand may respond to variations of price; the second treats (in effect) of the unitary elasticity of the demand for money. Professor Edgeworth now adds a reference to Book III. chap. xviii. § 5, where Mill deals in substance with the effect of elasticity on the Equation of International Demand. Elsewhere in this chapter Mill speaks of a demand being "more extensible by cheapness" (§ 4) and of the "extensibility of their [foreign countries'] demand for its [the home country's] commodities" (§ 8).

has been relegated to an Appendix. Marshall was always in two minds about this. On the one hand his views as to the perpetually changing character of the subject-matter of Economics led him to attach great importance to the historical background as a corrective to the idea that the axioms of to-day are permanent. He was also dissatisfied with the learned but half-muddled work of the German historical school. On the other hand he was afraid of spending too much time on these matters (at one period he had embarked on historical inquiries on a scale which, he said, would have occupied six volumes), and of overloading with them the essential matter of his book. At the time when he was occupied with economic history, there was very little ready-made material to go upon, and he probably wasted much strength straying unnecessarily along historical by-ways and vacillating as to the importance to be given in his own book to the historical background. The resulting compromise, as realised in the *Principles*, was not very satisfactory. Everything is boiled down into wide generalisations, the evidence for which he has not space to display.[1] Marshall's best historical work is to be found, perhaps, in *Industry and Trade*, published in 1919, many years after most of the work had been done. The historical passages of the *Principles* were brusquely assailed by Dr. William Cunningham in an address before the Royal Historical Society, printed in the ECONOMIC JOURNAL, Vol. II. (1892); and Marshall, breaking his general rule of not replying to criticism, came successfully out of the controversy in a reply printed in the same issue of the JOURNAL.[2]

The way in which Marshall's *Principles of Economics* is written, is more unusual than the casual reader will notice. It is elaborately unsensational and under-emphatic. Its rhetoric is of the simplest, most unadorned order. It flows in a steady, lucid stream, with

[1] Marshall himself wrote (in his reply to Dr. Cunningham, ECONOMIC JOURNAL, Vol. II. p. 507): "I once proposed to write a treatise on economic history, and for many years I collected materials for it. Afterwards I selected such part of those as helped to explain why many of the present conditions and problems of industry are only of recent date, and worked it into the chapters in question. But they took up much more space than could be spared for them. So I recast and compressed them; and in the process they lost, no doubt, some sharpness of outline and particularity of statement."

[2] Dr. Clapham writes: "In reading the Appendices to *Industry and Trade* I was very much impressed with Marshall's knowledge of economic history since the seventeenth century, as it was known thirty years ago, *i.e.* at the time of the controversy. I feel sure that at that time he understood the seventeenth to nineteenth centuries better than Cunningham, and he had—naturally—a feeling for their quantitative treatment to which Cunningham never attained."

few passages which stop or perplex the intelligent reader, even though he know but little economics. Claims to novelty or to originality on the part of the author himself are altogether absent.[1] Passages imputing error to others are rare; and it is explained that earlier writers of repute must be held to have *meant* what is right and reasonable, whatever they may have said.[2] The connexity and continuity of the economic elements, as signified in Marshall's two mottoes, "Natura non facit saltum" and "The many in the one, the one in the many," are the chief grounds of difficulty. But, subject to this, the chief impression which the book makes on the minds of uninitiated readers—particularly on those who do not get beyond Book IV.—is apt to be, that they are perusing a clear, apt and humane exposition of fairly obvious matters.

By this stylistic achievement Marshall attained some of his objects. The book reached the general public. It increased the public esteem of Economics. The minimum of controversy was provoked. The average reviewer liked the author's attitude to his subject-matter, to his predecessors, and to his readers, and delighted Marshall by calling attention to the proper stress laid by him on the ethical element and to the much required humanising which the dismal science received at his hands;[3] and, at the same time, could remain happily insensible to the book's intellectual stature. As time has gone on, moreover, the in-

[1] As one intelligent reviewer remarked (*The Guardian*, Oct. 15, 1890): "This book has two aspects. On the one hand, it is an honest and obstinate endeavour to find out the truth; on the other hand, it is an ingenious attempt to disclaim any credit for discovering it, on the ground that it was all implicitly contained in the works of earlier writers, especially Ricardo." But most of them were taken in. The following is typical (*Daily Chronicle*, July 24, 1890): "Mr. Marshall makes no affectation of new discoveries or new departures; he professes merely to give a modern version of the old doctrines adjusted to the results of more recent investigation."

[2] Marshall carried this rather too far. But it was an essential truth to which he held firmly, that those individuals who are endowed with a special genius for the subject and have a powerful economic intuition will often be more right in their conclusions and implicit presumptions than in their explanations and explicit statements. That is to say, their intuitions will be in advance of their analysis and their terminology. Great respect, therefore, is due to their general scheme of thought, and it is a poor thing to pester their memories with criticism which is really verbal. Marshall's own economic intuition was extraordinary, and lenience towards the apparent errors of great predecessors is treatment to which in future times he will himself have an exceptional claim.

[3] Fashions change! When, nearly thirty years later, *Industry and Trade* appeared, one reviewer wrote (*Athenæum*, Oct. 31, 1919): "Perhaps its least satisfactory feature is its moral tone. Not because that tone is low—quite the contrary; but because, in a scientific treatise, a moral tone, however elevated, seems altogether out of place."

tellectual qualities of the book have permeated English economic thought, without noise or disturbance, in a degree which can easily be overlooked.

The method has, on the other hand, serious disadvantages. The lack of emphasis and of strong light and shade, the sedulous rubbing away of rough edges and salients and projections, until what is most novel can appear as trite, allows the reader to pass too easily through. Like a duck leaving water, he can escape from this douche of ideas with scarce a wetting. The difficulties are concealed; the most ticklish problems are solved in footnotes; a pregnant and original judgment is dressed up as a platitude. The author furnishes his ideas with no labels of salesmanship and few hooks for them to hang by in the wardrobe of the mind. A student can read the *Principles*, be fascinated by its pervading charm, think that he comprehends it, and, yet, a week later, know but little about it. How often has it not happened even to those who have been brought up on the *Principles*, lighting upon what seems a new problem or a new solution, to go back to it and to find, after all, that the problem and a better solution have been always there, yet quite escaping notice! It needs much study and independent thought on the reader's own part, before he can know the half of what is contained in the concealed crevices of that rounded globe of knowledge, which is Marshall's *Principles of Economics*.

VII

The Marshalls returned in 1885 to the Cambridge of the early years after the reforms, which finally removed restrictions upon the marriage of Fellows. They built for themselves a small house, called Balliol Croft, on St. John's College land in the Madingley Road, close to the Backs, yet just on the outskirts of the town, so that on one side open country stretched towards Madingley Hill. Here Alfred Marshall lived for nearly forty years. The house, built in a sufficient garden, on an unconventional plan so as to get as much light as possible, just accommodated the two of them and a faithful maid. His study, lined with books, and filled transversally with shelves, had space by the fire for two chairs. Here were held his innumerable *tête-à-têtes* with pupils, who would be furnished as the afternoon wore on with a cup of tea and a slice of cake on an adjacent stool or shelf. Larger gatherings took place downstairs, where

the dining-room and Mrs. Marshall's sitting-room could be thrown into one on the occasion of entertainments. The unvarying character of the surroundings—upstairs the books and nests of drawers containing manuscript, downstairs the Michaelangelo figures from the Sistine Chapel let into the furniture, and at the door the face of Sarah the maid,[1] had a charm and fascination for those who paid visits to their Master year after year, like the Cell or Oratory of a Sage.

In that first age of married society in Cambridge, when the narrow circle of the spouses-regnant of the Heads of Colleges and of a few wives of Professors was first extended, several of the most notable Dons, particularly in the School of Moral Science, married students of Newnham. The double link between husbands and between wives bound together a small cultured society of great simplicity and distinction. This circle was at its full strength in my boyhood, and, when I was first old enough to be asked out to luncheon or to dinner, it was to these houses that I went. I remember a homely, intellectual atmosphere which it is harder to find in the swollen, heterogeneous Cambridge of to-day. The entertainments at the Marshalls' were generally occasioned, in later days, by the visit of some fellow-economist, often an eminent foreigner, and the small luncheon party would usually include a couple of undergraduates and a student or young lecturer from Newnham. I particularly remember meeting in this way Adolf Wagner and N. G. Pierson, representatives of a generation of economists which is now almost passed. Marshall did not much care about going to other people's houses, and was at his best fitting his guests comfortably into a narrow space, calling out staff directions to his wife, in unembarrassed, half-embarrassed mood, with laughing, high-pitched voice and habitual jokes and phrases. He had great conversational powers on all manner of matters; his cheerfulness and gaiety were unbroken; and, in the presence of his bright eyes and smiling talk and unaffected absurdity, no one could feel dull.

In earlier days, particularly between 1885 and 1900, he was fond of asking working-men leaders to spend a week-end with him,—for example, Thomas Burt, Ben Tillett, Tom Mann and many others. Sometimes these visits would be fitted in

[1] She lived with them for more than forty years on terms almost of intimacy. Marshall would often extol her judgment and wisdom. He himself designed the small kitchen, like a ship's cabin, in which she dwelt at Balliol Croft. Marshall was always much loved by his servants and College gyps. He treated them like human beings and talked to them about the things which he was interested in himself.

with meetings of the Social Discussion Society, which the visitor would address. In this way he came to know most of the leading co-operators and Trade Unionists of the past generation. In truth he sympathised with the Labour Movement and with Socialism (just as J. S. Mill had) in every way, except intellectually.[1]

Marshall was now settled in an environment and in habits which were not to be changed, and we must record in rapid survey the outward events of his life from 1885 to the resignation of his professorship in 1908.

From 1885 to 1890 he was mainly occupied, as we have seen, with the *Principles*. But the bibliographical note, below, records other activities, particularly his paper before the Industrial Remuneration Conference in 1885, his evidence before the Gold and Silver Commission in 1887–8, and his Presidential Address before the Co-operative Congress in 1889. In the summer of 1890 he delivered his interesting Presidential Address on "Some Aspects of Competition" to the Economic Section of the British Association at Leeds. He was also much occupied with his lectures, and these five years were the most active and productive of his life.

He gave two lectures a week in a general course, and one lecture a week on special theoretical difficulties; but he lectured, as a rule, in only two terms out of three, making about forty-five lectures in the year. Two afternoons a week, from four to seven, Professor Marshall, it was announced, "will be at home to give advice and assistance to any members of the University who may call on him, whether they are attending his lectures or not." In the late 'eighties the attendance at his general courses would vary between forty

[1] In the Preface to *Industry and Trade* he wrote :—" For more than a decade, I remained under the conviction that the suggestions, which are associated with the word 'socialism,' were the most important subject of study, if not in the world, yet at all events for me. But the writings of socialists generally repelled me, almost as much as they attracted me; because they seemed far out of touch with realities: and, partly for that reason, I decided to say little on the matter, till I had thought much longer. Now, when old age indicates that my time for thought and speech is nearly ended, I see on all sides marvellous developments of working-class faculty: and, partly in consequence, a broader and firmer foundation for socialistic schemes than when Mill wrote. But no socialistic scheme, yet advanced, seems to make adequate provision for the maintenance of high enterprise and individual strength of character; nor to promise a sufficiently rapid increase in the business plant and other material implements of production. . . . It has seemed to me that those have made most real progress towards the distant goal of ideally perfect social organisation, who have concentrated their energies on some particular difficulties in the way, and not spent strength on endeavouring to rush past them."

and seventy, and at his special courses half that number. But his methods choked off—more or less deliberately—the less serious students, and as the academic year progressed the attendance would fall to the lower figure.

It was not Marshall's practice to write out his lectures. "He rarely used notes," Mrs. Marshall writes, "except for lectures on Economic History. He sometimes made a few notes before he went to lecture, and thought over them on his way to the class. He said that the reason why he had so many pupils who thought for themselves was that he never cared to present the subject in an orderly and systematic form or to give information. What he cared to do in lectures was to make the students *think with him*. He gave questions once a week on a part of the subject which he had not lectured over, and then answered the questions in class. He took immense pains in looking over the answers, and used red ink on them freely." [1] I think that the informality of his lectures may have increased as time went on. Certainly in 1906, when I attended them, it was impossible to bring away coherent notes. But the above was always his general method. His lectures were not, like Sidgwick's, books in the making. This practice may have contributed, incidentally, to the retardation of his published work. But the sharp distinction which he favoured between instruction by book and oral instruction by lecture was, as he developed it, extraordinarily stimulating for the better men and where the class was not too large. It is a difficult method to employ where the class exceeds forty at the most (my memory of the size of his class when I attended it is of nearer twenty than forty), and it is not suited to students who have no real aptitude or inclination for economics (in whose interest the curricula of the vast Economic Schools of to-day are mainly designed). The following titles of successive courses, soon after he arrived in Cambridge, indicate the ground which he purported to cover:

1885-6.	October Term :	Foreign Trade and Money.
	Easter ,, :	Speculation, Taxation, etc. (Mill, IV and V).
1886-7.	October ,, :	Production and Value.
	Lent .. :	Distribution.

After the publication of the *Principles* in 1890, his first task was to prepare the abridgment, entitled *Economics of Industry*, [2]

[1] I have papers which I wrote for him on which his red-ink comments and criticisms occupy almost as much space as my answers.

[2] This book was frequently reprinted, and revised editions were prepared in 1896 and 1899; 81,000 copies of it have been sold up to date.

which appeared early in 1892.[1] He also spent much time on the successive revisions of the *Principles*, the most important changes being introduced in the third edition, published in 1895, and the fifth edition in 1907. It is doubtful whether the degree of improvement effected corresponded to the labour involved. These revisions were a great obstacle to his getting on with what was originally intended to be Volume II. of the *Principles*.

The main interruption, however, came from his membership of the Royal Commission on Labour, 1891–1894. He welcomed greatly this opportunity of getting into close touch with the raw material of his subject, and he played a big part in the drafting of the Final Report. The parts dealing with Trade Unions, Minimum Wage, and Irregularity of Employment were especially his work.

Meanwhile he was at work on the continuation of the *Principles*. "But he wasted a great deal of time," Mrs. Marshall writes, "because he changed his method of treatment so often. In 1894 he began a historical treatment, which he called later on a White Elephant, because it was on such a large scale that it would have taken many volumes to complete. Later on he used fragments of the White Elephant in the descriptive parts of *Industry and Trade*."

Marshall's work on the Labour Commission was only one of a series of services to Governmental inquiries. In 1893 he gave evidence before the Royal Commission on the Aged Poor, in which he proposed to associate Charity Organisation Committees with the administration of the Poor Law. Early in 1899 he gave carefully prepared evidence before the Indian Currency Committee. His evidence on monetary theory was in part a repetition of what he had said to the Gold and Silver Commission eleven years earlier, but he himself considered that the new version was an improvement and constituted his best account of the theory of money. The parts dealing with specifically Indian problems were supported by many statistical diagrams. His interest in the economic and currency problems of India had been first aroused during the time at Oxford when it was his duty to lecture to Indian Civil Service Probationers. He was pleased with his detailed realistic inquiries into Indian problems,[2] and the great rolls of Indian charts, not all of which were published, were always at hand as part of the furniture of his study.

[1] The concluding chapter on "Trade Unions" goes outside the field of the *Principles* and incorporates some material from the earlier *Economics of Industry*.

[2] He had many devoted Indian (and also Japanese) pupils.

Later in the same year, 1899, he prepared Memoranda on the Classification and Incidence of Imperial and Local Taxes for the Royal Commission on Local Taxation. In 1903, at the height of the Tariff Reform controversy, he wrote, at the request of the Treasury, his admirable Memorandum on "The Fiscal Policy of International Trade." This was printed in 1908 as a Parliamentary paper, at the instance of Mr. Lloyd George, then Chancellor of the Exchequer, "substantially as it was written originally." The delay of a critical five years in the date of publication was characteristically explained by Marshall as follows: "Some large corrections of, and additions to, this Memorandum were lost in the post abroad[1] in August 1903; and when I re-read the uncorrected proofs of it in the autumn, I was so dissatisfied with it that I did not avail myself of the permission kindly given to me to publish it independently. The haste with which it was written and its brevity are partly responsible for its lack of arrangement, and for its frequent expression almost dogmatically of private opinion, where careful argument would be more in place. It offends against my rule to avoid controversial matters; and, instead of endeavouring to probe to the causes of causes, as a student's work should, it is concerned mainly with proximate causes and their effects. I elected, therefore, to remain silent on the fiscal issue until I could incorporate what I had to say about it in a more careful and fuller discussion; and I am now engaged on that task. But it proceeds slowly; and time flies."

Marshall's growing inhibitions are exposed in these sentences. The difficulties of bringing him to the point of delivering up his mind's possessions were getting almost insuperable. In 1908 he resigned his Professorship, in the hope that release from the heavy duties of lecturing and teaching might expedite matters.

VIII

During his twenty-three years as Professor, he took part in three important movements, which deserve separate mention—the foundation of the British Economic Association (now the Royal Economic Society), the Women's Degrees Controversy at Cambridge, and the establishment of the Cambridge Economics Tripos.

1. The circular entitled "Proposal to Form an English

[1] They were stolen by a local post-mistress in the Tyrol for the sake of the stamps on the envelope.

Economic Association," which was the first public step towards the establishment of our own body, was issued on Oct. 24, 1890, over the sole signature of Alfred Marshall, though, of course, with the co-operation of others.[1] It invited all lecturers on Economics in any University or public College in the United Kingdom, the members of the Councils of the London, Dublin and Manchester Statistical Societies, and the members of the London Political Economy Club, together with a few other persons, including members of the Committee of Section F of the British Association, to attend a private meeting at University College, London, on Nov. 20, 1890, under the Chairmanship of Lord Goschen, the Chancellor of the Exchequer, "to discuss proposals for the foundation of an Economic Society or Association, and, in conjunction therewith, of an Economic journal." This initial circular letter lays down the general lines which we have actually pursued during the thirty-four years of our existence.[2] The only vocal dissentient to the proceedings was Mr. G. Bernard Shaw,[3] who, whilst approving everything else, suggested, "with all respect to Mr. Goschen, that the head of the Association should not be a gentleman who was identified with any political party in the State." It is interesting to record that of the original members of our Council, elected thirty-four years ago, the following still

[1] Marshall signed, I think, primarily in his capacity as President of the Economics Section of the British Association for 1890, at that year's meeting of which the need for the establishment of an Economic journal had been strongly urged.

[2] The chief difference of opinion, discovered at the outset, regarding the Society's scope, was indicated as follows: "Almost the only question on which a difference of opinion has so far shown itself is whether or not the Association should be open to all those who are sufficiently interested in Economics to be willing to subscribe to its funds. . . . There are some who think that the general lines to be followed should be those of an English 'learned Society,' while others would prefer those of the American Economic Association, which holds meetings only at rare intervals, and the membership of which does not profess to confer any sort of diploma." At the meeting a resolution was carried unanimously, proposed by Mr. Courtney and supported by Professor Sidgwick and Professor Edgeworth, "that any person who desires to further the aims of the Association, and is approved by the Council, be admitted to membership." The wording of our constitution shows some traces of compromise between the two ideas, but in practice the precedent of the American Economic Association has always been followed.

[3] Mr. Bernard Shaw was active in the economic world in those days. In 1888 Sidgwick, who was President of the Economics Section of the British Association in that year, wrote: "The Committee had invited a live Socialist, red-hot 'from the streets,' as he told us, who sketched in a really brilliant address the rapid series of steps by which modern society is to pass peacefully into social democracy. . . . There was a peroration rhetorically effective as well as daring. . . . Altogether a noteworthy performance—the man's name is Bernard Shaw. Myers says he has written books worth reading." (*Henry Sidgwick: a Memoir*, p. 497.)

hold office: Professor Bastable, Dr. Bonar, Professor Edgeworth, Professor Foxwell, Professor Nicholson, Mr. Price, and Sir H. Llewelyn Smith.

2. The controversy about admitting women to degrees, which tore Cambridge in two in 1896, found Marshall in the camp which was opposed to the women's claims. He had been in closest touch with Newnham since its foundation, through his wife and through the Sidgwicks. When he went to Bristol, he had been, in his own words, "attracted thither chiefly by the fact that it was the first College in England to open its doors freely to women." A considerable proportion of his pupils had been women. In his first printed essay (on "The Future of the Working Classes," in 1873), the opening passage is an eloquent claim, in sympathy with Mill, for the emancipation of women. All Mill's instances "tend to show," he says in that paper, "how our progress could be accelerated if we would unwrap the swaddling-clothes in which artificial customs have enfolded woman's mind and would give her free scope womanfully to discharge her duties to the world." Marshall's attitude, therefore, was a sad blow to his own little circle, and, being exploited by the other side, it played some part in the overwhelming defeat which the reformers eventually suffered. In his taking this course Marshall's intellect could find excellent reasons. Indeed the lengthy fly-sheet, which he circulated to members of the Senate, presents, in temperate and courteous terms, a brilliant and perhaps convincing case against the complete assimilation of women's education to that of men. Nevertheless, a congenital bias, which by a man's fifty-fourth year of life has gathered secret strength, may have played a bigger part in the conclusion than the obedient intellect.

3. Lastly there are Marshall's services in the foundation of the Cambridge School of Economics.

When Marshall came back to Cambridge in 1885, papers on Political Economy were included both in the Moral Sciences Tripos and in the History Tripos.[1] The separate foundation of these two schools some twenty years earlier had worked a great revolution in liberalising the studies of the University.[2] But, almost

[1] At Marshall's lectures in the later 'eighties, apart from students from other departments and B.A.'s who might be attracted out of curiosity about the subject, there would be a dozen or less Moral Science students and two dozen or less History students.

[2] Marshall summarised the history of the matter as follows in his *Plea for the Creation of a Curriculum in Economics* (1902):—"In foreign countries economics has always been closely associated with history or law, or political science, or some combination of these studies. The first (Cambridge) Moral Sciences Examination (1851–1860) included ethics, law, history, and economics; but not

as soon as he was Professor, Marshall felt strongly that the time had come for a further step forward; and he particularly disliked the implication of the existing curriculum, that Economics was the sort of subject which could be satisfactorily undertaken as a subsidiary study. Immediately that he was back in Cambridge in 1885 he was in rebellion against the idea that his lectures must be adapted to the requirements of an examination of which Economics formed but a part.[1] His Inaugural lecture constituted, in effect, a demand that Economics should have a new status; and it was so interpreted by Sidgwick. The following declaration from that lecture is of some historical importance as almost the first blow in the struggle for the independent status which Economics has now won almost everywhere:

"There is wanted wider and more scientific knowledge of facts: an organon stronger and more complete, more able to analyse and help in the solution of the economic problems of the age. To develop and apply the organon rightly is our most urgent need; and this requires all the faculties of a trained scientific mind. Eloquence and erudition have been lavishly spent in the service of Economics. They are good in their way; but what is most wanted now is the power of keeping the head cool and clear in tracing and analysing the combined action of many combined causes. Exceptional genius being left out of account, this power is rarely found save amongst those who have gone through a severe course of work in the more advanced sciences. Cambridge has more such men than any other University in the world. But, alas! few of them turn to the task. Partly this is because the only curriculum in which Economics has a very important part to play is that of the Moral Sciences Tripos. And many of those who are fitted for the highest and hardest economic work are not attracted by the metaphysical studies that lie at the threshold of that Tripos."

This claim of Marshall's corresponded to the conception of the subject which dominated his own work. Marshall was the first great economist *pur sang* that there ever was; the first who devoted his life to building up the subject as a separate science,

mental science or logic. In 1860, however, philosophy and logic were introduced and associated with ethics; while history and political philosophy, jurisprudence and political economy formed an alternative group. In 1867 provision was made elsewhere for law and history; and mental science and logic have since then struck the keynote of the Moral Sciences Tripos."

[1] For his contentions with Sidgwick about this (and for a characteristic specimen of Sidgwick's delightful and half-humorous reaction to criticism) see *Henry Sidgwick: a Memoir*, p. 394.

standing on its own foundations, with as high standards of scientific accuracy as the physical or the biological sciences. It was Marshall who finally saw to it that "never again will a Mrs. Trimmer, a Mrs. Marcet, or a Miss Martineau earn a goodly reputation by throwing economic principles into the form of a catechism or of simple tales, by aid of which any intelligent governess might make clear to the children nestling around her where lies economic truth."[1] But—much more than this—after his time Economics could never be again one of a number of subjects which a Moral Philosopher would take in his stride, one Moral Science out of several, as Mill, Jevons, and Sidgwick took it. He was the first to take up this professional, scientific attitude to the subject, as something above and outside current controversy, as far from politics as physiology from the general practitioner.

As time went on, Political Economy came to occupy, in Part II of the Moral Sciences Tripos, a position nearer to Marshall's ideal. But he was not satisfied until, in 1903, his victory was complete by the establishment of a separate School and Tripos in Economics and associated branches of Political Science.[2]

Thus in a formal sense Marshall was Founder of the Cambridge School of Economics. Far more so was he its Founder in those informal relations with many generations of pupils, which played so great a part in his life's work and in determining the course of their lives' work.

To his colleagues Marshall might sometimes seem tiresome and obstinate; to the outside world he might appear pontifical or unpractical; but to his pupils he was, and remained, a true sage and master, outside criticism, one who was their father in the spirit and who gave them such inspiration and comfort as they drew from no other source. Those eccentricities and individual ways, which might stand between him and the world, became, for them, part of what they loved. They built up sagas round him (of which Professor Fay is, perhaps, the chief repository), and were not content unless he were, without concession, his own unique self. The youth are not satisfied, unless their Socrates is a little odd.

It is difficult to describe on paper the effect he produced or

[1] From his article "The Old Generation of Economists and the New," *Quarterly Journal of Economics*, Jan. 1897.

[2] Sidgwick had been finally converted to the idea in 1900, shortly before his death. Marshall's ideals of economic education are set forth in his "Plea for the Creation of a Curriculum in Economics" and his "Introduction to the Tripos in Economics. . . ."

his way of doing it. The pupil would come away with an extraordinary feeling that he was embarked on the most interesting and important voyage in the world. He would walk back along the Madingley Road, labouring under more books, which had been taken from the shelves for him as the interview went on, than he could well carry, convinced that here was a subject worthy of his life's study. Marshall's double nature, coming out informally and spontaneously, filled the pupil seated by him with a double illumination. The young man was presented with a standard of intellectual integrity, and with it a disinterestedness of purpose, which satisfied him intellectually and morally at the same time. The subject itself had seemed to grow under the hands of master and pupil, as they had talked. There were endless possibilities, not out of reach. "Everything was friendly and informal," Mr. Sanger has written of these occasions (*Nation*, July 19, 1924), "there was no pretence that economic science was a settled affair—like grammar or algebra—which had to be learnt, not criticised; it was treated as a subject in the course of development. When once Alfred Marshall gave a copy of his famous book to a pupil, inscribed 'To ——, in the hope that in due course he will render this treatise obsolete,' this was not a piece of mock modesty, but an insistence on his belief that economics was a growing science, that as yet nothing was to be considered as final."

It must not be supposed that Marshall was undiscriminating towards his pupils. He was highly critical and even sharp-tongued. He managed to be encouraging, whilst at the same time very much the reverse of flattering. Pupils, in after life, would send him their books with much trepidation as to what he would say or think. The following anecdote of his insight and quick observation when lecturing is told by Dr. Clapham: "You have two very interesting men from your College at my lecture," he said to a College Tutor. "When I come to a very stiff bit, A. B. says to himself, 'This is too hard for me: I won't try to grasp it.' C. D. tries to grasp it but fails,"—Marshall's voice running off on to a high note and his face breaking up into his smile. It was an exact estimate of the two men's intelligences and tempers.

It is through his pupils, even more than his writings, that Marshall is the father of Economic Science as it exists in England to-day. So long ago as 1888, Professor Foxwell was able to write: "Half the economic chairs in the United Kingdom are occupied by his pupils, and the share taken by them in general

(In his garden shelter at Cambridge) 1920.

1913.

(In the Tyrol) 1909.

ALFRED MARSHALL.

economic instruction in England is even larger than this." [1] To-day through pupils and the pupils of pupils his dominion is almost complete. More than most men he could, when the time came for him to go away, repeat his *Nunc Dimittis*, on a comparison of his achievement with the aim he had set himself in the concluding sentence of his Inaugural Lecture in 1885: "It will be my most cherished ambition, my highest endeavour, to do what with my poor ability and my limited strength I may, to increase the numbers of those whom Cambridge, the great mother of strong men,[2] sends out into the world with cool heads but warm hearts, willing to give some at least of their best powers to grappling with the social suffering around them; resolved not to rest content till they have done what in them lies to discover how far it is possible to open up to all the material means of a refined and noble life."

IX

Marshall retired from the Chair of Political Economy at Cambridge in 1908, aged sixty-six. He belonged to the period of small salaries and no pensions. Nevertheless he had managed out of his professorial stipend (of £700, including his fellowship), which he never augmented either by examining or by journalism,[3] to maintain at his own expense a small lending library for undergraduates, to found a triennial Essay Prize of the value of £60 [4] for the encouragement of original research, and privately to pay stipends of £100 a year to one, or sometimes two, young lecturers for whom the University made no provision and who could not have remained otherwise on the teaching staff of the School of Economics. At the same time, with the aid of receipts from the sales of his books,[5] he had saved just sufficient to make retirement financially possible. As it turned out, the receipts from his books became, after the publication of *Industry and Trade*, so con-

[1] "The Economic Movement in England," *Quarterly Journal of Economics*, Vol. II. p. 92.

[2] It must be recorded, in the interests of impartiality, that Dr. Jowett took strong exception to this phrase.

[3] All his many services to the State were, of course, entirely unpaid.

[4] In 1913 he transferred to the University a sufficient capital sum to provide an equivalent income in perpetuity.

[5] He always insisted on charging a lower price for his books than was usual for works of a similar size and character. He was a reckless proof-corrector, and he kept matter in type for years before publication. Some portions of *Industry and Trade*, which he had by him in proof for fifteen years before publication, are said to constitute a "record" He never regarded books as income-producing objects, except by accident.

siderable that, at the end of his life, he was better off than he had ever been; and he used to say, when Macmillan's annual cheque arrived, that he hardly knew what to do with the money. He has left his Economic library to the University of Cambridge, and most of his estate and any future receipts from his copyrights are also to fall ultimately to the University for the encouragement of the study of Economics.

Freed from the labour of lecturing and from the responsibility for pupils,[1] he was now able to spend what time and strength were left him in a final effort to gather in the harvest of his prime. Eighteen years had passed since the publication of the *Principles*, and masses of material had accumulated for consolidation and compression into books. He had frequently changed his plans about the scope and content of his later volumes, and the amount of material to be handled exceeded his powers of co-ordination. In the preface to the fifth edition of the *Principles* (1907) he explains that in 1895 he had decided to arrange his material in three volumes: I. *Modern Conditions of Industry and Trade*; II. *Credit and Employment*; III. *The Economic Functions of Government*. By 1907 four volumes were becoming necessary. So he decided to concentrate upon two of them, namely: I. *National Industry and Trade*; and II. *Money, Credit and Employment*. This was the final plan, except that, as time went on, *Employment* was squeezed out of the second of these volumes in favour of International Trade or *Commerce*. Even so, twelve more years passed by, before, in his seventy-seventh year, *Industry and Trade* was published.

During this period the interruptions to the main matter in hand were inconsiderable. He wrote occasional letters to *The Times*—on Mr. Lloyd George's Budget (1909), in controversy with Professor Karl Pearson on "Alcoholism and Efficiency" (1910), on "A Fight to a Finish" and "Civilians in Warfare" on the outbreak of war (1914), and on Premium Bonds (1919). He wrote to the *Economist* in 1916 urging increased taxation to defray the expenses of the war; and in 1917 he contributed a chapter on "National Taxation after the War" to *After-War Problems*, a volume edited by Mr. W. H. Dawson.

Marshall's letters to *The Times* on the outbreak of war are of some interest. When he was asked, before war was actually declared, to sign a statement that we ought not to go to war

[1] He still continued, up to the time of the war, to see students in the afternoons—though perhaps former pupils (by that time young dons) more than new-comers.

because we had no interest in the coming struggle, he replied: "I think the question of peace or war must turn on national duty as much as on our interest. I hold that we ought to mobilise instantly, and announce that we shall declare war if the Germans invade Belgium; and everybody knows they will." For many years he had taken seriously Pan-Germanic ambitions; and he headed his letter "A Fight to a Finish." Thus he took up a definitely anti-pacifist attitude, and did not fluctuate from this as time went on. But he was much opposed to the inflaming of national passions. He remembered that he had "known and loved Germany," and that they were "a people exceptionally conscientious and upright." [1] He held, therefore, that "it is our interest as well as our duty to respect them and make clear that we desire their friendship, but yet to fight them with all our might." And he expressed "an anxiety lest popular lectures should inflame passions which will do little or nothing towards securing victory, but may very greatly increase the slaughter on both sides, which must be paid as the price of resisting Germany's aggressive tendencies." These sentiments brought down on him the wrath of the more savage patriots.

At last, in 1919, *Industry and Trade* appeared, a great effort of will and determination on the part of one who had long passed the age when most men rest from their labours.

It is altogether a different sort of book from the *Principles*. The most part of it is descriptive. A full third is historical and summarises the results of his long labours in that field. The co-ordination of the parts into a single volume is rather artificial. The difficulties of such co-ordination, which had beset him for so many years, are not really overcome. The book is not so much a structural unity, as an opportunity for bringing together a number of partly related matters about which Marshall had something of value to say to the world. This is particularly the case with its sixteen Appendices, which are his device for bringing to birth a number of individual monographs or articles. Several of these had been written a great number of years before the book was issued. They were quite well suited to separate publication, and it must be judged a fault in him that they were hoarded as they were.

[1] "Those," he wrote to *The Times* on August 22, 1914, "who know and love Germany, even while revolted at the hectoring militarism which is more common there than here, should insist that we have no cause to scorn them, though we have good cause to fight them. . . . As a people I believe them to be exceptionally conscientious and upright, sensitive to the calls of duty, tender in their family affections, true and trusty in friendship. Therefore they are strong and to be feared, but not to be vilified."

The three books into which the volume is divided would, like the Appendices, have suffered very little if they had been published separately. Book I., entitled *Some Origins of Present Problems of Industry and Trade*, is a history of the claims to industrial leadership of England, France, Germany and the United States mainly during the second half of the nineteenth century. Book II., on *Dominant Tendencies of Business Organisation*, whilst not definitely historical, is also in the main an account of the evolution of the forms of Business Organisation during the second half of the nineteenth century. Book I. is an account of the economic evolution of that period considered nationally; Book II. is an account of it considered technically. Book III., on *Monopolistic Tendencies: their Relations to Public Well-being*, deals in more detail with the special problems which arose in regard to Transport and to Trusts, Cartels and Combinations during the same period.

Thus such unity as the book possesses derives from its being an account of the forms of individualistic capitalism as this had established itself in Western Europe at about the year 1900, of how they came to pass, and of how far they served the public interest. The volume as a whole also serves to illustrate what Marshall was always concerned to emphasise, namely the transitory and changing character of the forms of business organisation and of the shapes in which economic activities embody themselves. He calls particular attention to the precarious and impermanent nature of the foundations on which England's industrial leadership had been built up.

The chief value of the book lies, however, in something less definite and more diffused than its central themes. It represents the fruits of Marshall's learning and ripe wisdom on a host of different matters. The book is a mine rather than a railway —like the *Principles*, a thing to quarry in and search for buried treasure. Like the *Principles*, again, it appears to be an easy book; yet it is more likely, I believe, to be useful to one who knows something already than to a beginner. It contains the suggestions, the starting points for many investigations. There is no better book for suggesting lines of original inquiry to a reader so disposed. But for the ignorant the broad generalisations of the book are too quiet, smooth, urbane, undogmatic, to catch him.

Industry and Trade was a remarkable success with the public. A second edition was called for immediately, and, by the end of 1923, 12,000 copies had been printed. The fact that it was reaching wide circles of readers and met with no damaging

criticisms was a cause of great encouragement and consolation to the aged author, who could feel that, after all, he had not been prevented by time, the enemy, from delivering his words to the world.

But, all the same, time's wingèd chariot was hurrying near. "Old age," as he wrote in the Preface to *Industry and Trade*, "indicates that my time for thought and speech is nearly ended." The composition of great Treatises is not, like that of great pictures, a work which can be continued into extreme old age. Much of his complete scheme of ordered knowledge would never be delivered. Yet his determination and his courage proved just equal to the publication of one more volume.

His powers of concentration and of memory were now beginning to fail somewhat rapidly. More and more he had to live for the book alone and to save for that every scrap of his strength. Talk with visitors tired him too much and interfered too seriously with his power of work. More and more Mrs. Marshall had to keep them away from him, and he lived alone with her, struggling with Time. He would rest much, listening to his favourite melodies on the auto-piano, which was a great solace to him during the last ten years of his life, or hearing Mrs. Marshall read over again a familiar novel. Each night he walked alone in the dark along the Madingley Road. On his seventy-eighth birthday he said that he did not much want a future life. When Mrs. Marshall asked him whether he would not like to return to this world at intervals of (say) a hundred years, to see what was happening, he replied that he should like it from pure curiosity. "My own thoughts," he went on, "turn more and more on the millions of worlds which may have reached a high state of morality before ours became habitable, and the other millions of worlds that may have a similar development after our sun has become cool and our world uninhabitable." [1] His greatest difficulty, he said, about believing in a future life was that he did not know at what stage of existence it could begin. One could hardly believe that apes had a future life or even the early stages of tree-dwelling human beings. Then at what stage could such an immense change as a future life begin?

Weaknesses of digestion, which had troubled him all his life, increased in later years. In September, 1921, in his eightieth year, he made the following notes:—"Tendency of work to bring on feeling of pressure in the head, accompanied by weariness, is increasing; and it troubles me. I must work on, so far as strength permits, for about two full years (or say four years of half-time) if that is allowed to me: after that, I can say 'Nunc dimittis.'

[1] *Cf.* the remarkable footnote to p. 101 of *Money, Credit and Commerce.*

I care little for length of life for its own sake. I want only so to arrange my work as to increase my chance of saying those things which I think of chief importance."

In August, 1922, soon after his eightieth birthday, *Money, Credit and Commerce* was finished, and it was published in the following year, 1923. The scope of the volume differed from his design, in that it did not include "a study of the influences on the conditions of man's life and work which are exerted by the resources available for employment." But he managed to bring within the covers of a book his chief contributions to the theories of Money and of Foreign Trade. The book is mainly pieced together from earlier fragments, some of them written fifty years before, as has been recorded above, where also the nature of his main contributions to these subjects have been summarised. It shows the marks of old age in a way which *Industry and Trade* did not. But it contains a quantity of materials and ideas, and collects together passages which are otherwise inaccessible to the student or difficult of access. "If much of it might have been written in the 'eighties of last century," Professor Edgeworth wrote of it in the ECONOMIC JOURNAL, "much of it will be read in the 'eighties of this century."

"Although old age presses on me," he wrote in the Preface to *Money, Credit and Commerce*, "I am not without hopes that some of the notions which I have formed as to the possibilities of social advance may yet be published." Up to his last illness, in spite of loss of memory and great feebleness of body, he struggled to piece together one more volume. It was to have been called *Progress: its Economic Conditions*. But the task was too great. In a way his faculties were still strong. In writing a short letter he was still himself. One day in his eighty-second year he said that he was going to look at Plato's *Republic*, for he would like to try and write about the kind of Republic that Plato would wish for, had he lived now. But though, as of old, he would sit and write, no advance was possible.

In these last days, with deep-set and shining eyes, wisps of white hair, and black cap on his head, he bore, more than ever, the aspect of a Sage or Prophet. At length his strength ebbed from him. But he would wake each morning, forgetful of his condition and thinking to begin his day's work as usual. On July 13, 1924, a fortnight before his eighty-second birthday, he passed away into rest.

J. M. KEYNES

Note.—There are several allusions in the above to a "Bibliographical Note." It has proved necessary, however, to postpone the publication of this until the December JOURNAL.

THE FAMILY ALLOWANCE SYSTEM [1]

General Remarks

THE systems of wage payment in operation in various countries before the war were the result largely of the application of the doctrines of individualism. In fixing rates of wages almost no attempt was made to take direct account of the greater needs of workers with families to maintain, and with rare exceptions the universal practice was for the same wage rate to be fixed for all workers of a given grade in a given establishment or district without regard to their family responsibilities; in other words the principle of equal pay for equal work so far as men were concerned received general acceptance.

It is true that in the processes of collective bargaining the workers' unions frequently urged the claims of the wage earners to a living wage based on the needs of a family, but in so far as consideration was given to this claim the conception of the standard family appears to have been generally adopted by both employers and workers, and the latter in most cases considered their object to be attained if a wage adequate for a family of average size were secured.

The wage rates actually fixed for any group of workers were, apart from the influence of custom, determined largely by the demand for and the supply of their labour, and the general effect of paying the same wage thus fixed to unmarried and to married workers was that the former had a surplus, while the latter frequently experienced a deficiency. As was pointed out by M. Romanet, one of the pioneers of the family allowance system in France, " to give the same wage to an unmarried man and to a married man with a large family is the same thing as putting on the table the same quantity of food for the one as for the other. The unmarried man will have a surplus while the married man will be unable to supply his needs." [2]

During the war, the rise in the cost of living led to the practice

[1] For details of the application of the family allowance system in various countries, reference may be made to an objective study on the subject published by the International Labour Office. Miss Rathbone, in her book, *The Disinherited Family*, (London, 1924), gives the arguments in favour of the system and outlines the case of the opposition.

[2] *Chronique Sociale de France*, May 1922, p. 317.

of adding cost of living bonuses to the basic wages, and in a number of countries these bonuses were frequently differentiated in relation to family needs. In this way attention was directed to the principle "to each according to his needs," which during recent years has found numerous advocates.[1]

From some points of view the application of this principle may be regarded as a means of securing a better distribution of that portion of the national dividend which is paid to the wage earners. The problem is how best to distribute the amount actually being paid in wages, and it may be agreed that, apart from undesirable consequences,[2] there will be an increase in economic welfare from the application of the principle of distribution according to needs. This conclusion is a special case of Professor Pigou's generalisation that, other things being equal, an increase in the proportion of the national dividend accruing to the poor will probably increase economic welfare, the poor here being the workers with large families to maintain.

Distribution according to family needs may in itself involve no change in the total wage bill of a group of workers, and be merely a redistribution by which the resources of workers with families larger than the average are increased at the expense of those with families smaller than the average. One of the chief reasons, however, for the adoption of the family allowance system in a number of European countries during the war appears to have been that there was a general reduction in real wages, and the change in the method of distribution served to diminish the hardships especially of those with large families.[3] The principle of equal pay had to give way, and that of payment according to need was adopted to a greater or less extent.

Recent Developments

In most countries in Continental Europe the family allowance system was widely applied during the war. With the return to more normal conditions after the war, there was in a number of countries a reversion to the system of equal pay, and since about the beginning of 1921, especially in the Scandinavian countries,

[1] The principle had already received some application before the war, for example in the case of State employees in certain public administrative departments in France.

[2] For example an increase in the birth rate in countries already adequately populated. This question is discussed in the section on the objects of family allowances.

[3] The problem was not one of increasing welfare but of reducing the amount of decrease.

Switzerland and Italy, family allowances have rarely, if at all, been paid in the case of workers in private industry, although in several of these countries they continue to be paid to State and other public administrative officials and workers. The conditions, however, which led to the application of the family allowance system in various countries during the war and in the years immediately succeeding it still prevail in certain countries in Central Europe owing to the effects of currency depreciation. In these countries and particularly in Germany, the family allowance system is widely applied, and is one of the means of mitigating the effects of the fall in real wages. In Germany the family allowance system applies to several millions of workers, including all or a large part of those in the mining, metal, chemical and printing industries as well as bank employees, State officials and manual workers in State employment. But even with the payment of allowances for wife and children the real wages of married workers in most occupations have, during recent years, been well below the pre-war level.

The application during and since the war of the family allowance system—in other words of a system of distribution according to needs—as a means of mitigating the worst effects of a low level of real wages, suggests that while the principle of equal pay (to men) for equal work may be fairly satisfactory in countries or industries which are relatively prosperous, a case may be made out for the application of the system of distribution according to need where the incomes of those with families to maintain would otherwise be seriously inadequate. Thus it might with advantage be applied in the case of certain low-paid industries; for example, in some of the industries in which Trade Boards have been set up.[1] It may be added that by the regulations governing a number of family allowance schemes, the allowances are paid only in respect of workers whose wages are below a given amount. Sometimes the allowances are diminished as the wage increases, and this course appears preferable to that of paying the allowances in full to all workers below a given wage and not at all to workers above that wage.[2]

Of the countries in which the family allowance system has been applied, France has devoted the greatest attention

[1] In this connection it may be noted that in a number of countries, unemployment insurance benefits are differentiated according to family needs.

[2] The latter system is open to the objection that workers just below the maximum wage for which allowances are paid may be better off by remaining at such a wage and continuing to draw the allowances than if they advance to a higher wage.

to its development. In that country, the system has been adopted not so much for the purpose of dealing with the exceptional economic conditions of the war years and of those immediately following, but of endeavouring to reduce infant mortality and to increase the birth rate. During the last four years, there has been a rapid extension of the system in France, and at the end of May 1924 about 2,700,000 workers were covered by it.[1] In Belgium, a rapid development began in the autumn of 1922, and the experience gained in France was largely utilised. At the end of 1923, about 250,000 workers in private industry, or about 18 per cent. of the total, were employed in establishments where family allowances were paid, while the system was also applied in the State administrations.[2]

In Holland, although the development has been less rapid than in France and Belgium, the number of workers covered by family allowance schemes has increased during the post-war years. The system is also applied to a considerable extent in the Serb–Croat–Slovene Kingdom. In Europe as a whole it has been estimated that not far short of eight million workers are employed in establishments paying family allowances, and in addition most of the Governments have adopted the system for their own civilian employees.[3]

It may be mentioned that in Australia during the post-war period, proposals for the general application of the family allowance system as a development of the living wage policy have not been adopted, although the system is in force as regards Commonwealth employees.

The regulations governing the payment of family allowances in the various countries differ considerably. The allowances themselves are of various kinds and may include regular allowances for the wife, regular allowances for some or all dependent children, and special allowances paid on the birth of a child, or during the nursing period.[4] In the case of the allowances paid regularly, some regulations provide for married workers to receive allowances in respect of the wife and each dependent child;[5] others provide for their payment in respect of the children only. Sometimes, the wage is regarded as being adequate for the main-

[1] *La Journée Industrielle*, May 27, 1924.

[2] *Revue du Travail*, November 1923, p. 2332.

[3] See article on "Family Allowances and Clearing Funds in France" by Paul H. Douglas, in *The Quarterly Journal of Economics*, February 1924, p. 250.

[4] In some cases allowances are paid in respect of invalid or of aged dependents.

[5] The allowances for children are usually paid in respect of those under thirteen or fourteen years of age.

tenance of a family of average size (*e.g.* a man with wife and two dependent children), and allowances are paid only in respect of children in excess of the average number. Frequently for children there is an ascending scale of allowances, *i.e.* with higher amounts for each succeeding child, while according to other regulations, the scale is uniform or descending.

Objects of Family Allowances

Among those who advocate the principle of payment according to needs, some are actuated by the humanitarian desire of promoting the welfare of workers with large families, and others by the motive of increasing the population of the nation from the point of view either of industrial or of military power. These two objects are somewhat conflicting, since the promotion of the welfare in the present generation of those with large families, by the adoption of a system which results in an increase in the population, may have a harmful effect on that welfare in the future. If the assumption is made that the payment of family allowances will have an appreciable effect in increasing the population, it follows that, apart from exceptional cases, the system should be applied only in countries which are under-populated.

There are many, however, who consider this assumption unfounded. They point out that the highest birth rate coincides with the lowest standard of living, and hold the view that in the case of those with the lowest incomes "the hopelessness of a proper discharge of parental obligation breeds a recklessness in incurring them." They believe that the improvement in the economic position of such families which would result from the payment of family allowances would better the condition of the children actually born, and the raising of the status of women, through the recognition of their value to the community as mothers, might be expected to lead to a reduction of the birth rate of the lowest classes of the population. They argue also that the system of family allowances would tend to increase the birth rate in the more thrifty artisan and lower middle classes, and that an improvement in the quality of the population might be expected. Professor Edgeworth points out, however, that such a conclusion is based on a calculation of motives, the operation of which is uncertain, so that the system offers no security for the improvement of the race.[1]

No satisfactory evidence is yet forthcoming in the countries

[1] ECONOMIC JOURNAL, December 1922, p. 454.

where family allowances are paid as to their effect on the birth rate. In France, where the system is supported largely as a means of increasing the population, the data available do not, according to M. Bonvoisin, Director of the Family Allowance Committee, allow of any definite conclusions being formed on this point. There appears, however, to be ample evidence to prove that the payment of family allowances, together with the work done by the home visitors appointed by many of the organisations which make such payments, has had a marked effect in reducing infantile mortality and in improving the health of the children.

The effect on the birth rate will depend to a large extent on the amounts paid in allowances and the systems of payment adopted. In the countries in which family allowances are paid the amounts and systems vary considerably in different industries and districts, but it is only in exceptional cases that the allowances are equivalent to the cost of maintenance of the dependents in respect of whom they are paid.[1] As regards the systems of payment, there may be a greater tendency for population to increase where there is an ascending scale of allowances than where the scale is uniform or descending. In France, during the last two years there has been, especially amongst those who support the family allowance system as a means of increasing the birth rate, a movement in favour of the policy of paying allowances only, or at a higher rate, in respect of large families. Some organisations in fact pay no allowances in respect of the first child or the first two children, but pay, in respect of other children, relatively high amounts.

An object of the family allowance system which has been given little publicity by the employers, but which is of considerable importance, is that of effecting an economy in wages. This may result, for example, from the application of the system after a period in which there has been a rise in the cost of living. The workers demand increases in money wages in order that their real wages may be maintained. Instead, however, of agreeing to a uniform increase, the employers, by the introduction of the system, enable those with large families to maintain their standard of living, while unmarried workers and those with small families lose the surplus they previously enjoyed. In this way, unless there has been a reduction in the national dividend, the proportion distributed to the group of workers concerned is less than before. Where such is the result, the employers paying family allowances evidently have an advantage in competition over those who have not secured an equivalent economy. As the family allowance system spreads

[1] Indications are given in a later section as to the amounts generally paid.

within a country, this advantage is reduced so far as the home market is concerned, although the country which applies the system in such a way that it effects an economy in wages, has an advantage in competition with countries where it is not applied.

Some methods of application of the system tend to result in a greater stability in the personnel of the establishments in which it has been adopted. In many cases the regulations governing the payment of the allowances stipulate that workers shall become entitled to such payments only after they have served a given period with the same employer. Moreover, if allowances are paid by some employers only, workers with large families will prefer to stay with those employers.[1] Again, the family allowance system may serve to some extent as a bonus for regular attendance, as, for example, where the payments cease in case of sickness or absence from work without sufficient cause. Some employers, particularly in France, regard the payment of allowances as a means of improving industrial relations.

One further object may be mentioned, namely that the introduction of the family allowance system may enable the principle of equal pay for equal work as between men and women to be established. It is claimed that one of the greatest barriers in the way of this equality is that under the system of wage payment, until recent years almost universal, the wages of adult male workers are fixed partly in relation to the knowledge that they may have families to maintain, whereas those of women are influenced by the fact that women are regarded as generally being without dependents. The barrier would be removed if in addition to the wage, adequate allowances for dependents were provided. This reason for the introduction of the family allowance system has received considerable prominence in Great Britain,[2] but appears to have received little or no attention in countries in which the family allowance system has been applied.

Methods of Providing Family Allowances

The two chief sources of the sums necessary for the payment of family allowances are the employers and the State. Provision

[1] Many employers regard workers with families as the most regular and conscientious of their workers.

[2] It was discussed, for example, by Miss Rathbone, in her article on the "Remuneration of Women's Services" (ECONOMIC JOURNAL, March 1917), and in her recent book, *The Disinherited Family*, and by Mrs. Sidney Webb in her Minority Report to the War Cabinet Committee on Women in Industry (Cmd. 135 for the year 1919). Professor Edgeworth criticised the means (family allowances) in relation to the end (equal pay for men and women) in his article in the ECONOMIC JOURNAL, December 1922, p. 431.

by the employers, which is in practice by far the more important method, may be voluntary, or compulsory. Where provided voluntarily, the payment of the allowances may be made in accordance with collective agreements, or solely on the initiative of the employers. In Germany, Austria, Poland, Czechoslovakia and Holland, and during the war and the years immediately following it in the Scandinavian countries and Switzerland, the system was based mainly on collective agreements, whereas in France and Belgium the employers have in most cases introduced the system on their own initiative, and have paid little or no regard to the views of the workers' organisations.

Wherever family allowances are paid by the employers direct to their workpeople, whether on their own initiative or according to collective agreements, the danger arises that as they are able to reduce the total amount paid in allowances by increasing the proportion of unmarried workers and of married workers with small families, they may discriminate against the very workers that the payments were designed to help. This danger, which is particularly great during periods of industrial depression, may be removed partly or wholly by the adoption of the equalisation fund (*caisse de compensation*) system, by which the allowances are paid from a fund fed by contributions of a number of employers in a given industry or district. The contributions to the fund are based on some factor not proportionate to the number of children of the workers, the most usual factors being the total wage bill of each employer, or the total number of his workers.[1] Where the equalisation fund system has been adopted, it appears to have been successful in avoiding discrimination against workers with large families. In the initial stages of the voluntary adoption of the equalisation fund system, the industrial type open only to employers in a given industry or group of allied industries appears to be the more common, and it has the advantage that the regulations may be drawn up to suit the special needs of each industry. For example, in industries like mining, where the majority of workers are men, different regulations and rates of contribution may be required from those suitable for an industry where many women are employed, *e.g.* the textile industry. Some funds organised on a district basis and open to all employers irrespective of the industry to which they belong, provide for this difficulty by setting up separate sections within the fund for industries which differ

[1] There still remains an advantage to the whole group of employers associated in the fund to engage workers with few or no dependents, but the larger the group, the smaller this danger becomes.

considerably from one another. Other district funds have uniform regulations and rates of contribution for all the industries covered, and this type is regarded, particularly by employers in France, as the most satisfactory in the long run, especially as one of the consequences of family allowances may be an increase in the supply of labour in the coming generation, an increase from which all industries would benefit.

Equalisation funds organised on the initiative of the employers have received their greatest development in France. At the beginning of 1920 there were only six funds, but when the Fourth National Family Allowance Congress organised by the Comité des Allocations Familiales [1] was held at Mulhouse at the end of May 1924, it was announced that the number of funds was 151, covering 9,300 establishments with over a million workers.[2] In Belgium, since the middle of 1922 twelve equalisation funds on the French model have been formed. It may be added that in addition to the funds set up by the employers, the Belgian Confederation of Christian Trade Unions has recently established a fund for the payment of family allowances in respect of all children, under sixteen years of age beginning with the third, of the permanent members of affiliated unions. This appears to be the only case in which a workers' organisation has established the system of paying family allowances.[3]

In Holland, several funds have been established either on the initiative of the employers or by means of collective agreements. In Germany, if account is taken of the extensive development of the family allowance system, the number of equalisation funds is very small. This may be due partly to the fact that during the greater part of the period in which allowances have been paid there has been little unemployment, and therefore little danger of discrimination against married workers.[4] Also the allowances them-

[1] A central organisation set up by the funds for purposes of liaison, research and propaganda. A similar committee has been formed in Belgium.

[2] For mine workers, for whom in recent years employment has been good, allowances are paid, but no equalisation funds have been set up, while in the case of the railway companies which in a sense effect "equalisation," on account of their size, and of the public administrations, the danger of discrimination against married workers is small, and allowances are paid without the intermediary of equalisation funds.

[3] Professor Edgeworth in his article "Equal Pay to Men and Women for Equal Work" (ECONOMIC JOURNAL, December 1922) suggested (p. 457) that trade unions might, if they so desired, make provision for the children of members, and form equalisation funds. Various trade unions, in paying unemployment benefits to their workers, pay higher sums to those with dependents than to those without.

[4] When unemployment became serious in 1923 and the beginning of 1924, complaints regarding discrimination against married workers began to be made.

selves have generally been small, so that the results from the setting up and maintenance of equalisation machinery would not have repaid the labour and expense involved.

Various proposals have been made, especially in France, in the Commonwealth of Australia, and the State of New South Wales, for making the payment of family allowances and membership of equalisation funds compulsory on all employers. The only country, however, where such a general law has been applied is Austria, where, at the end of 1921, a system of children's insurance was introduced, the payment of allowances out of contributions of the employers being made compulsory and equalisation on a district basis provided. The real value of the allowances became almost negligible in the autumn of 1922, owing to the rise in the cost of living, to which the allowances were not adjusted.

In France, the bill introduced into the Chamber by M. Bokanowski in 1920 had as object the making of the payment of family allowances and membership of a district or an industrial fund compulsory on all employers. The bill was defeated largely owing to the opposition of the employers.[1] The Bill brought forward in New South Wales in 1919 by the Holman Administration, and the proposal of Mr. Piddington in 1920 for the Commonwealth of Australia,[2] were similar to M. Bokanowski's bill in that the allowances were to be paid out of contributions of the employers. They differed from it, however, in proposing the setting up of a State equalisation fund.

The New South Wales Labour Government Bill of 1921 proposed the payment of family allowances not out of contributions by the employers, but out of State revenues. The French law of July 22, 1923, provides for such payments in respect of all children under thirteen years of age beyond the third.

Importance of the Amounts Paid

Some indications may be given as to the importance of the amounts paid in family allowances, especially in the three countries in which the system is the most highly developed, namely, France, Belgium and Germany. In France at the end of May 1924 the averages of the amounts paid by the equalisation funds then established were 19 francs per month for the first child, 27 francs

[1] A law was passed on December 19, 1922, which led to the making of the payment of allowances and membership of a fund compulsory, with minor exceptions, on all employers working on State contracts.

[2] See A. B. Piddington, K.C., *The Next Step*, Melbourne, 1922.

for the second, 35 francs for the third, and 43 francs for the fourth child. The average monthly wage of an adult workman in France being about 500 francs, the allowances constitute additions to the wage of less than 4 per cent. for one child, about 9 per cent. for two children, about 16 per cent. for three children and nearly 25 per cent. for four children.

The equalisation funds were paying allowances at the end of May 1924 at the rate of over 128 million francs per annum, this constituting some 2 per cent. of the total wage bill of the establishments covered. In the mining industry in certain of the chief districts, the allowances are somewhat higher than those paid by equalisation funds, being in some cases 1 franc or even 1 franc 50 centimes per child per day. During 1923, the total amount paid in family allowances by the mining companies was about 80 million francs, this being about 5 to 6 per cent. of the wage bill.[1] The allowances paid in respect of the children of State officials also form a relatively important addition to the salary, the scale from the beginning of 1924 being 495 francs per annum for each of the first two children and 840 francs per annum for other children.

In Belgium. the rates of allowances paid are generally somewhat lower than those in France, the most usual scale of payment being 10 francs per month for the first child, 20 francs for the second, 30 francs for the third and 40 francs for the fourth and succeeding children. In Germany in a number of industries allowances are paid not only in respect of the children, but also of the wife, a practice which is rarely adopted in France or Belgium. Among the industries in which allowances are paid in Germany the amounts are relatively low in the chemical industry, in which the addition in respect of the wife and two children together is only about 3 or 4 per cent. of the wage. In the metal industry the allowances are somewhat higher, and constitute an addition for the wife and two children of about 6 or 7 per cent. to the wage. The addition for such dependents in the case of mine workers is about 8 to 12 per cent.[2] The allowances are highest for State officials

[1] The higher percentage of the total wage bill in the case of the mining companies is accounted for mainly by the fact that there is a larger proportion of adult male workers in this industry than in those covered by the equalisation funds which include, for example, the textile industry, in which the number of dependent children of the workers is relatively small.

[2] The differences in the importance of the allowances in Germany and also in other countries as between one industry and another may partly be explained by the adoption in one industry of a relatively low rate of wages with comparatively high allowances and in another industry of a higher rate of wages but only small allowances; in other words, the greater application in some industries than in others of the principle of distribution according to needs.

and workers, being for the wife and two children about 15 per cent. of the salary in the case of upper grade officials, about 20 per cent. in the case of intermediate grade officials and of manual workers, and over 30 per cent. in the case of officials in the lowest grades. In Austria, Poland, and a number of other countries, the allowances constitute in many cases almost negligible additions to the wage.

Opinions regarding Family Allowances

Opinions differ very widely as to the payment of family allowances. "To some the principle appears as a foretaste of communism, to others as a measure of wage economy; to some as the next step of advanced feminism, to others as a brake upon the industrialisation of home life. To many it appears above all else as a sweeping measure of child welfare." [1] From the point of view of the opinions of employers and workers in the different industrial countries, a distinction may be drawn between those countries in which the system continues to be applied and those where it has not been adopted or was applied as a temporary measure only. The latter group includes the Scandinavian countries, together with Czechoslovakia, Switzerland and Great Britain, and in these, the employers and workers are strongly opposed to the system. In North America the subject has received little or no attention from employers or workers.

In Germany and various other Central European countries many employers and workers' organisations are opposed to family allowances, and regard them as a temporary necessity during an exceptional period.[2] Among the workers' organisations in Germany the chief opposition comes from the Socialist Unions, the Christian Unions being, as in France, Belgium and Holland, favourable to the principle. The Socialist Unions consider that assistance for those with large families should be provided not by the employers but by the State, not by means of money payment, but by free education, apprenticeship, medical attendance, and the free feeding and even clothing of school children. They are strongly in favour of a wage policy which has as object the securing for all workers of a minimum wage adequate for an average family. They fear that the inclusion of family allowances in the terms of collective agreements will cause a division of

[1] *The Meaning of Family Endowment*, by Mrs. M. D. Stocks, p. 7.

[2] For certain opinions in Germany, see an article on "The Family Wage Controversy in Germany," by Dr. E. Heimann (ECONOMIC JOURNAL, December 1923, p. 509).

interests in the Unions, between unmarried and married workers.[1] Similar views are also held by the Socialist Unions in France, Belgium and Holland. In France and Belgium especially, the Socialist Unions were at first opposed to the payment of family allowances, which they regarded as a means of withholding the full increase in wages due on account of the rise in the cost of living; but as the system spread it was realised that, as a large number of workers were actually receiving allowances, it would be difficult to destroy the system, and it was accepted as a *fait accompli.* Attention was then directed to the methods by which allowances are provided, and strong opposition was raised against those features of the present system which savoured of paternalism or of charity on the part of the employers. Demands were made that instead of being voluntary and organised by the employers, the system should be made compulsory by law, and administered by joint committees representative of all the interests concerned, and that the allowances should be paid either out of State funds on the same lines as insurance benefits are provided for unemployment, sickness, disability and old age, or else out of compulsory contributions of the employers. The allowances should be paid only in the case of families larger than the average and it is considered, as in Germany, that the wage should be adequate for an average family. Opposition is also strong, as in other countries, against the practice in some cases adopted by the employers of withholding the allowances during strikes.

The general attitude of employers in France and Belgium is that the system should be allowed to develop without any element of compulsion, their view being that a State scheme would be too rigid and would not allow of sufficient consideration being given to the special conditions of different industries and districts. They believe that a State system would involve complicated administration and control which would be far more costly than the present system. They also consider that the improvement in industrial relations which they claim to be one of the advantages of the present system would be lost if compulsion were introduced. It may be added that the French employers favour the drawing of a clear distinction between the wage or the payment for work done, which is the same for all workers whether married or unmarried, and the allowances which are largely independent of the quantity and quality of the work done. They point out that the allowances are frequently paid independently of the wage, often

[1] This division of interests is less serious if the method is adopted of paying allowances in respect of large families only.

to the mother and not to the wage earner, in many cases by the equalisation fund and not by the employer, and that they may be maintained during periods of unemployment or sickness of the worker. The workers' organisations, on the other hand, have continued to regard the allowances paid by the employers, whether directly or through equalisation funds, as part of their remuneration for labour, and maintain that if the allowance is in no way connected with the wage, but is a matter of social justice, then it should be paid, not by the employer but by the community as a whole.[1] The idea of distinguishing the allowance from the wage does not appear to have been discussed to any great extent in Germany and other countries in Central Europe, the allowance being generally paid with the wage and regarded as part of the remuneration of the worker.

In Australia, the workers' organisations favour the payment of family allowances by the community as a whole to those with large families, but adopt the policy of endeavouring to secure for all workers a wage adequate for a family of average size. Many Australian employers are opposed to the system, believing that its application would result in an increase in the total wages bill.

J. H. RICHARDSON

Geneva,
July 15, 1924.

[1] The question as to whether or not the allowance should be regarded as part of the wage is of importance in fixing the indemnities for victims of industrial accidents. The tendency of the courts in France appears to be, for this purpose, to regard the allowance as part of the wage.

SOME PROBLEMS OF TAXATION IN AUSTRALIA

I. *Need for Review of Taxation*

FEDERATION in Australia was not achieved without misgivings regarding the future powers of the member States. There was much opposition to proposals calculated to reduce the taxing powers of the colonies; yet it was impossible to restrict the taxing power of the Commonwealth. Believing that "no Commonwealth can exist without possessing unlimited powers of taxation," as a delegate to the 1891 Convention declared, the founders of our Constitution gave the Commonwealth Parliament unlimited powers to make laws with respect to taxation, provided there was no discrimination between States or parts of a State.[1] At the time it was thought that indirect taxation through customs and excise would yield much more revenue than would be required by Federal authority, and by the famous Braddon clause (87 of the Constitution) it was provided that only one-fourth of the revenue from customs should be retained by the Commonwealth, the balance being paid over to the States. This was to continue for ten years and thereafter until Parliament determined otherwise.

In this way it was hoped that the revenue of the States would not be unduly disturbed and there was little thought of the Commonwealth levying direct taxation. But time and circumstance and the centripetal tendency of Government have altered the situation beyond recognition. By 1910 the Federal Government, despite increases in the tariff, was finding the arrangement inconvenient and Parliament reviewed it. For the succeeding ten years and until Parliament decided otherwise the States were to receive 25*s.* per head of the population from the Commonwealth. In the same year the Labour Government introduced land taxation with a double object of providing revenue and breaking up the large estates. This committed the Commonwealth to direct [2] taxation, and on the outbreak of war

[1] Throughout this article "State" refers to the six members of the Commonwealth of Australia originally independent colonies.

[2] It may be argued that the land tax is not strictly a direct tax in that the whole incidence does not fall upon the landowner. In general it is very difficult to classify taxes into two well-defined groups, and the widespread assumption that State taxation is wholly direct is not quite correct. For example, a State entertainments tax is clearly indirect. But in general the State taxes are largely direct, while the main forms of indirect taxation levied by the Commonwealth are customs and excise duties. All other taxes will be regarded as direct, and the words "direct" and "indirect" are used throughout this article in this sense.

further steps were taken. Succession duties were introduced in 1914, a Federal income tax levied in 1915, and later a war-time profits tax and an entertainments tax. These measures were somewhat hastily devised to meet a pressing situation, and during the war there was little serious criticism of the financial policy of the Federal Government.[1] But the situation was embarrassing to the States, there was much duplication of activities and many inconsistencies, and the steady increase in both State and Federal taxation brought to light grave blemishes in the taxation system of the country.[2] Up to 1919 the Government had made some efforts to come to an understanding through conferences on at least five occasions of Premiers and Treasurers and taxation officers, and an agreement with respect to the collection of taxes had been entered into between the Federal Government and Western Australia. It was all mere patchwork, and nothing less than a complete review of the whole problem would suffice. Hence the appointment in September 1920 by the Federal Government of a Royal Commission. The Commissioners chosen were representative of the commercial, farming and labour interests, and though some were recognised as close students of economics and had carried out social and economic investigations for the Government, there was no recognised economist as such. This is generally the case in Australia, where the study of Economics is still very backward despite the great interest of the average man in economic and social problems. But the evidence of the expert and the interested party alike was eagerly sought by the Commission, and business and commercial organisations throughout the country prepared memoranda or appointed official witnesses. Sittings were held in all the States and altogether 191 witnesses were examined. A great mass of evidence upon the trade and finance of the country was collected which, together with that collected by the Royal Commission on the Basic Wage in the same year, should provide a mine of information for the future research student. Unfortunately the evidence is not published, but the Commission has prepared five lengthy

[1] It is not suggested that the Labour Party when in opposition did not repeatedly censure the Government; its criticism with respect to loans and taxes was relevant, but the Government was merely following the policy inaugurated by the Labour Party when in office.

[2] Taxation per head increased as follows:

Year ending June 30th.	Commonwealth.			State.			Total.		
	£	s.	d.	£	s.	d.	£	s.	d
1911	3	4	10	0	19	0	4	3	10
1921	9	13	9	3	7	3	13	1	0
1923	8	19	1	3	4	7	12	3	8

reports upon all problems relating to direct taxation as well as "the harmonisation of Commonwealth and State taxation." It is with this latter problem, discussed in the Commission's second report, and later the subject of an important conference of Commonwealth and State authorities, that this article is concerned.

II. *Taxation in Australia*

Before dealing directly with this problem it is necessary to outline some of the main features of the taxation system of Australia. Customs and excise taxation is the prerogative of the Federal Parliament, and thanks to the growing protectionist sentiment in the country it has been a fruitful source of revenue. The 1920 tariff schedule is the highest on record. Favoured by heavy importations and increases in prices, the customs and excise revenue rose from £21,574,559 in 1919–20 to £31,809,906 in 1920–21. This represents 61 per cent. of the taxation of the Commonwealth and 44 per cent. of that of the Commonwealth and States together. The position in recent years is shown in the following table:

TABLE I.

Taxation in Australia, 1910–23.

(Figures in thousands.)

Year ended June 30th.	Taxation by Commonwealth Government.		Taxation by State Governments.	Total Taxation.	Percentage Customs and Excise to total Taxation.
	Customs and Excise.	Other.			
	£	£	£	£	
1910	11,593	—	4,115	15,708	75
1913	15,553	1,565	5,065	22,183	70
1916	16,934	6,599	8,142	31,675	53
1920	21,574	20,273	14,292	56,139	38
1921	31,810	20,617	18,204	70,631	44
1922	27,630	22,048	17,848	67,526	41
1923	32,872	17,013	18,740	68,625	48

N.B.—As already indicated, the proportions given in the last column are not to be regarded as indicating the relative importance of direct and indirect taxation. Taking the year 1922–23, income and probate taxes yielded £26,182,000 (see Table II). This leaves a total of £9,569,000 for land tax, other stamp duties, licences and all other taxes. Assuming half of this to be direct taxation, the direct taxes would amount to approximately £31,000,000, or 44 per cent. of the total, and not 48 per cent. as might be assumed from the above table if customs and excise be regarded as the only form of indirect taxation, as is frequently the case in public discussion in Australia.

An encouraging feature of this table is the general decline of the proportion of taxation through customs and excise. But the high tariff of 1920 and the slight reductions in Commonwealth income tax recently is having the effect of increasing this proportion again.

The relatively lower yield of indirect taxation indicated by this table is in line with developments elsewhere and in keeping with recent thought on taxation.

As noted above, the Commonwealth levies probate duties, land and income tax, entertainments tax and war profits tax. Land and income taxes and probate or succession duties [1] and stamp duties are levied in all the States. In addition there are various licences and fees through which considerable revenue is obtained. The following table shows the amount raised by these taxes for the year ending June 30th, 1923 :

TABLE II.

Taxation (other than Customs and Excise) in Commonwealth and States, 1922–23.

(Figures in thousands.)

Taxation.	C'wealth.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
	£	£	£	£	£	£	£	£
Probate and Succession Duties	1,173	1,175	697	257	205	46	57	3,610
Other Stamp Duties . .	—	1,462	1,118	354	397	173	166	3,670
Land . . .	2,019	3	393	418	197	80	97	3,207
Income . . .	12,905	4,196	1,514	2,150	903	579	325	22,572
Licences . . .	—	240	335	99	43	55	23	795
Other Taxes. .	917	723	19	54	71	54	60	1,898

This table shows that there are many differences in the taxation systems of the several taxing authorities. The varying emphasis given to the different taxes is due partly to the financial condition of the State (principally the burden of debt and the yield of public works) and partly to considerations of general policy. Some States have levied heavy land taxes or sought to obtain a large proportion of estates passing at death, whilst others prefer the income tax. Some, *e.g.* Queensland, have imposed a heavy burden on the upper classes, and others have relied as in Tasmania, mainly upon those of moderate incomes.

[1] In Queensland both are levied, in South Australia succession duties only, and in all other States probate duties.

Social purpose has entered largely into Budget policy, and the States have sought to a greater or less extent to promote a more equal distribution of wealth or to break up land monopoly and promote settlement. Some Governments have attempted to use taxation as an instrument of social change, while others have been content to adopt the line of least resistance. In this way a great diversity has arisen, making very difficult any attempt to promote uniformity. Further complications arise owing to the varying necessities of the States. Space does not permit an examination of the geographic, economic and social factors that affect financial policy, but the conditions are by no means alike in all six States. Victoria, for instance, thanks to its relatively low debt, its land legislation, the more closely settled nature of its territory, the greater profits of its public works, and a long-standing tradition of careful and cautious finance, is able to "balance the ledger" with a comparatively small income tax. Western Australia, on the other hand, has an accumulated deficit which amounts to over £6,000,000, against which there is a sinking fund of nearly £9,000,000. Table III gives an interesting comparison of the sources of revenue and expenditure and debt in the several States.

TABLE III.

Percentage of Revenue raised by Taxation and Public Works, Debt per Head, and Percentage of Expenditure upon Debt Charges, 1922–3.

State.	Percentage of Total Revenue.		Debt per head (30/6/23).	Debt Charges.			
	Taxation.	Public Works.		Per head.			Percentage of Total Expenditure.
	Per cent.	Per cent.	£	£	s.	d.	
N.S.W. .	22	63	84	3	17	5	24
Victoria .	19	59	75	3	12	5	27
Queensland	26	45	112	4	11	1	28
S.A. . .	22	60	122	4	15	11	29
W.A. . .	14	56	170	7	10	3	34
Tasmania .	34	40	103	4	3	0	37
All States .	21	58	95	4	4	4	27

This table shows the varying yields of taxation and public works, and the great differences in the debt charges in the different States. Such divergencies increase the complexity of

the problem already depicted in the statistics quoted in Table II above. But this may be more fully shown by a comparison of the yield per head of various taxes as under:

TABLE IV.

Yield per Head of Taxes in the States and Commonwealth, 1922–23.

State.	Income Tax.			Land Tax.			Probate and Succession Duties.			Total Taxation.		
	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
New South Wales	1	18	8		—			10	10	3	11	10
Victoria		19	1		4	11		8	10	2	11	3
Queensland	2	14	6		10	7		6	6	4	4	6
South Australia	1	15	2		7	9		8	0	3	10	10
West Australia	1	13	9		4	8		2	8	2	17	6
Tasmania	1	9	8		8	11		5	2	3	6	6[1]
Commonwealth	2	5	10		7	2		4	2	8	17	1
General Average	4	0	2		11	5		12	10	12	3	8

It is not to be assumed that the figures in the last column indicate the relative tax burdens of the several States. This aspect of the problem has come into prominence recently owing to the appeal of Tasmania for further assistance from the Commonwealth Government. With State taxation at £2 9*s.* 0*d.* (now £3 1*s.* 10*d.*) per head compared with an Australian average of £3 5*s.* 11*d.*, it might appear that Tasmania had a weak case, but investigations carried out by the Government statistician for Tasmania (Mr. L. F. Giblin) have shown that the tax-paying capacities of the States differ greatly.[2] Using the information available in the Federal and State Income Tax Returns and the Census of Wealth and Income, 1915, Mr. Giblin has computed an index of taxable capacity. The most valuable data for this purpose were found to be the assessments of the Federal income tax, which, operating uniformly in all the States, gives a direct measure of tax-paying capacity for an income tax which in its graduation is fairly typical of the Australian State income taxes.

[1] Tasmania taxes a licensed lottery, most of the investments in which come from outside of Tasmania. It is computed that 18*s.* per head is derived in this way, and hence the Tasmanian taxation per head should be £2 8*s.* 6*d.* This is the lowest of the States, but increases in taxation in Tasmania estimated at 13*s.* 4*d.* per head have been imposed recently.

[2] Pamphlet on "The Taxable Capacity of Australian States."

Working on this basis Mr. Giblin arrives at the following striking results :

TABLE V.

Severity of Taxation in the States.

State.	Tax per head (1922–23). A.	Index of Tax-paying Capacity (1919–22), B.	Severity of Taxation, $\frac{A \times 1000}{B}$.
	s. *d.*		*s.* *d.*
New South Wales . . .	71 10	1006	71 5
Victoria	51 2	1158	44 2
Queensland	84 0	789	106 6
South Australia . . .	71 0	1075	66 1
West Australia	57 6	867	66 4
Tasmania	49 8[1]	588	84 5
Six States	65 11	1000	65 11

These results show very clearly how unevenly the burden of taxation is distributed and emphasise the great difficulties of promoting uniformity in State taxation or arranging a general scheme for the delimitation of spheres of taxation between State and Federal authority. Owing to the varying burdens of taxation any proposal, while offering relief to some States, will create hardships for others and the pressing financial needs of most States are at present an insurmountable obstacle to uniformity.

III. *Harmonisation of Commonwealth and State Taxation*

The most pressing and in some respects the most difficult question with which the Royal Commission had to deal was the delimitation of spheres of taxation by State and Federal authority. As noted above, much consideration had been given to this problem by the respective Governments. In Conferences from 1916 onwards consideration was given to the possibility of uniform returns, but this proved extremely difficult under the varying rates and scope of the taxes. In 1918, however, the taxation officers thought some scheme possible provided that a

[1] Excluding lottery tax, the burden of which is distributed over all Australia. The recent increases in taxation make this figure approximately 61*s.* 10*d.* and the corresponding figure in the last column would then be 105*s.* 2*d.* (Pamphlet, pp. 12, 15). The difference between the figures in Column *A* and those in the last column of Table IV are due to taking the mean population for the former and the population at December 31st for the latter. For the purpose of estimating taxable capacity, mean population is necessary for Tasmania, which has a large tourist immigration in December.

uniform income year and greater similarity in rates, deductions, etc., were adopted. It was proposed in 1919 to set up a single taxing authority, but opinion was divided on the question of control, some thinking that the rights of the States would be infringed. Later, in 1920, the Commonwealth Treasurer offered to collect the whole of the direct taxation at one-third of the cost at the time. Here again the States held back on the ground that their fiscal freedom would be restricted. The only real advance made in the matter was an agreement arrived at between the Commonwealth and West Australian Governments whereby the former was to collect land, income and totalisator tax at one-third of the previous cost. Under the agreement the State Commissioner was to be responsible for the administration of the State laws, but all other officers were to be under Federal authority. The State Government was to be free to levy taxation as it pleased. Hence there would be two taxation acts though one collecting authority. Moreover, the arrangement undoubtedly strengthened the hands of the Commonwealth authorities. The Under-Treasurer of West Australia gave his opinion that the agreement was not "an amalgamation but an absorption, a surrender by the States of valuable rights and executive power." [1] This may be an exaggeration, but it sums up the attitude of those who stand by the rights of the States. They are to a large extent the property owners, business and commercial men and the opponents generally of the Labour Party, which works consistently for greater Federal authority. Everybody is agreed that there should be uniformity in taxation, one collecting authority for any one tax and a uniform return. But every proposal has broken down on the question of control. The Royal Commission rejected the West Australian agreement and passed over any form of joint collection as a permanent solution of the problem. "Only by a delimitation of spheres or allocation of subjects of taxation between the Commonwealth and the States can an ordered and satisfactory system of taxation be brought about in Australia" (Sec. 240). Exclusive power of taxation by the States was objected to on the ground that "where any authority is receiving revenue it should be charged with the responsibility of determining the nature and incidence of the taxation" (Sec. 232). This is obviously sound, and federation would have been impossible without a recognition of this principle. But the Minority Commissioner on this point rather ignores this fundamental fact and proposes that the States

[1] *Report of Royal Commission on Taxation*, p. 74.

should collect and levy direct taxation paying a *per capita* sum to the Commonwealth. Clearly the varying taxable capacity of the States renders such a scheme inequitable. Tasmania and West Australia would find it specially burdensome, and it would only serve to emphasise greatly the present diversity of taxes, rates, deductions,[1] etc.

In favouring delimitation of spheres the Majority Commissioners were faced with a difficulty. Following Seligman and other authorities, they favoured income tax as the exclusive right of the Commonwealth. The soundness of this conclusion will become increasingly clear as the volume of inter-state trade increases. At present only 2 per cent. of the taxpayers have incomes derived from more than one State.[2] The proportion of tax paid by these taxpayers was about 25 per cent. of the total for the years 1921–2 and 1922–3,[3] and they would benefit greatly if income tax became the sole preserve of the States, their incomes being taxed in the State of earning. The problem is complicated by the inclusion of company tax, which must, more than personal income tax, be a Federal matter. Unfortunately, however, the States received £9,668,000 (1922–3) in income tax, while the total direct taxation other than income tax levied by the Commonwealth amounted to £4,108,000 only. Thus the States would lose some 5½ millions. They would be deprived of one of the most fruitful sources of revenue and their fiscal powers seriously impaired. Probate and succession duties, land taxes, amusement taxes and various licences being imposed for social as well as fiscal purposes should rightly be the province of the States. The States are responsible for land legislation, education, industrial legislation to a large extent, and general social control, and they should be able to use their fiscal powers in support of their general policy. But there will be some surrender of State rights in the proposal. The Commission suggests the above division of direct taxation as the ultimate solution. For the

[1] An interesting constitutional point arises in connection with this proposal for a *per capita* contribution by the States. The Constitution provides that there shall be no discrimination in taxation between States and parts of a State (Art. 51). Surely a tax per head would in effect be discrimination, and for Tasmania very drastic discrimination. That State would pay almost double the amount now paid in Federal income tax. Conversely the *per capita* contribution is in effect discrimination in favour of Tasmania. This consideration is a serious argument against a proposal for *per capita* contributions by the States, though it would doubtless be regarded as permissible under the Constitution.

[2] *Report of Royal Commission*, p. 125K.

[3] Assuming that the collection of income tax by the Central Federal office is confined to such taxpayers.

immediate future it recommends (i) that all direct taxation but income tax be surrendered by the Commonwealth, (ii) that income tax be levied by both State and Federal authority on the basis of a uniform Act, (iii) that the Commonwealth be the collecting and administrative authority for income tax, (iv) that the Commonwealth retain the whole of the revenue from customs and excise, ceasing to pay the *per capita* sum of 25*s*. per head to each State, and (v) that during the early years of the scheme the Commonwealth should make such contributions to any State as may be necessary to adjust the finances of the State to the new conditions.

To anyone viewing the growth of Federal power during the war some such scheme seemed inevitable. The present Federal Government, however, has worked more or less in the opposite direction. Early in 1923 it proposed to cease taxation of incomes of under £2000, giving over this field exclusively to the States. At the same time the *per capita* payments would cease and the States were to surrender their right to interest on properties transferred to the Commonwealth at the time of federation. It was pointed out that the burden of war charges prevented for the time being an entire abandonment of the field of direct taxation by the Commonwealth, but at some future time such a course might be possible.[1] To this the States replied that the Commonwealth should retire from the field of income taxation and receive from the States, which would forgo their *per capita* payments, such a sum as might be required to meet any deficiency in the Federal revenue. After much debate the Commonwealth modified its original scheme by agreeing to abandon all income tax except that upon companies at a flat rate of 2*s*. 6*d*. provided that "the States would evacuate the field of company taxation to the extent necessary to enable the Commonwealth tax to be put on without increasing the total tax payable by companies."[2] Each State was to be at least £100,000 to the good on this proposal, even if the Commonwealth had to make special contributions. This appeared a very good proposition from the point of view of the States, but certain obstacles prevented its immediate adoption: (i) the statistics of the amount of Federal income tax collected in the States proved to be incorrect; (ii) there was no means of estimating the loss to revenue caused by taxing individuals separately on their earnings in each State; (iii) there was the probability of an increase in rates because of this loss and the fear that recipients of large incomes might escape; and

[1] *Proceedings of Conference of Commonwealth and State Ministers*, 1923, p. 4.
[2] *Proceedings of Conference* (*Statement by Prime Minister*), pp. 25–6.

(iv) some of the States were unwilling to meet the Commonwealth on the question of company taxation. New South Wales in particular stood out, though other States were generally sympathetic. Finally, the whole question was dropped until the figures for 1922–3 should become available. It is difficult to see how this can prove a satisfactory solution. It is opposed to the declared policy of the Labour Party, whose leader has intimated that he would not necessarily retain it, should Labour come into office. It will certainly weaken the powers of the Federal Government, which has generally taxed the wealthy at greater rates than have the States. There is no real solution of the problem of uniformity; both authorities continue to levy land, probate and succession duties, and the income taxes will differ greatly in the States. A revision of the Federal Constitution is long overdue, and if it should result in strengthening the hands of the Federal Government, this surrender of taxing authority will almost certainly be revoked eventually.

Having failed for 1923 in its attempt at a reconstruction of the taxation system, the Federal Government turned to the question of income tax collection. It has now entered into an agreement with the State Governments whereby they will collect the Federal income tax, and a uniform return has been issued. Both assessments will be issued at the one time and the taxpayer will be relieved of the expense of the double returns and payments. Each Government is free to make its own taxation laws, but the hope is expressed that there will be a tendency towards uniformity. The most likely way of achieving this is by the States agreeing to the provisions of the Federal Act, but as administration is in the hands of the States there will be a tendency for the individual States to press the Federal Government to modify its law in their favour. It is generally admitted that the Federal taxation department was efficiently organised and that it offered more protection to the revenue than the State departments. In view of this and of the inevitable centripetal developments of Federal Government, this agreement would appear to be a step backward. The Federal taxation department still collects company land and amusement taxes and probate duties, and it would be a comparatively simple matter for any Government favouring the collection of income tax by Federal authority to restore the powers of the department in this respect.

D. B. Copland

The University of Tasmania,
April 24th, 1924.

THE *FINAL REPORT* OF THE AGRICULTURAL TRIBUNAL OF INVESTIGATION

THE state of British agriculture has been investigated on numerous occasions during the last hundred years, by means of Royal Commissions, Public Inquiries, Select Committees and other variously styled bodies. 1822 saw the findings of an "Inquiry into Agricultural Distress"; 1922 witnessed the appointment of this "Tribunal of Investigation." The intervening periods of depression are punctuated by the *Reports* of 1833, 1882, 1894 and 1919. To what degree the circumstances of 1922 resembled (economically, politically or climatically) those dominant in 1822 and in the succeeding "bad times" is arguable, but it will be agreed on all sides that the latest method of inquiry registered a considerable advance in the means of approaching the problem. A body of three economists, sitting with an Agricultural Assessor, must necessarily be swifter in its work and freer in its methods than is permissible for a fully constituted Commission representative of numerous interests, but the Tribunal resembles its predecessors in one respect—it has produced the familiar result of a majority and a minority *Report.*

It is important to recall the terms of reference prescribed this body, which were as follows: "To inquire into the methods which have been adopted in other countries during the last fifty years to increase the prosperity of agriculture and to secure the fullest possible use of the land for the production of food and the employment of labour at a living wage, and to advise as to the methods by which these results can be achieved in this country." Here, admittedly, was set a somewhat different task from any previously undertaken, but, nevertheless, when reading through the first part of the *Report,* the feeling is apt to arise that too little cognisance has been taken of the past history of agriculture in this country, and that the majority of the members of the Tribunal, in common with the bodies above referred to, were so obsessed with the apparently critical condition of the industry at the commencement of their inquiry, that they failed to discount transitory influences. Indeed, certain paragraphs in the *Report* itself, as well as in the two

Interim Reports, might have been extracted, word for word, from the gloomy, but unfulfilled, prognostications of any of the nineteenth-century Commissions.

Since three out of its four members specifically state that they still "adhere to the recommendations contained in the *First* and *Second Interim Reports*," the policy advocated by these members in their final *Report* cannot be dissevered from their earlier recommendations, and a preliminary review of the latter must therefore precede any comments on the contents of the main volume.

It was surprising, last year, to find what might not unfairly be described as "panic" measures advocated to arrest, or circumvent, phenomena which past experience could have shown to be recurrent and short-lived. The most remarkable instance of this policy was contained in the Tribunal's suggestions in connection with the potato industry. It appears to have been misled by the combination of a large acreage and an above-average rate of yield into assuming that growers could not weather a few months of the resulting low prices; accordingly, in order to counter the supposed influence of a small Low Countries exportation, it recommended that potatoes should only enter the country under general licence of the Board of Trade. Next season witnessed the natural and anticipated reduction in area (95,000 acres, or 17 per cent., in England and Wales alone), and, within eight months, the price-index had risen from 72 to 191 (1911–13 = 100). Again, it will be remembered that the proposed ten shilling duty on malting barley led to the discovery that Trade agreements stood in the way of another uncalled-for and involved piece of legislation, the mere suggestion of which was sufficient to cause most misleading statements to be put about as to the quantity of barley alleged to have been sown in anticipation of this measure.[1]

The recommendations in regard to wheat offals and hops were doubtful expedients, the first of which would have proved extremely difficult to put into execution. Lastly, it is unnecessary to enter into details of the far-reaching scheme put forward a short time later for subsidising arable land in general and the wheat area in particular, for the administrative difficulties would have been almost insuperable, while the supplementary legislation called for would have been both far-reaching and hampering. The cumulative evidence points to a desire to

[1] The proposals in connection with malting barley, hops, and wheat offals were not endorsed by Professor Macgregor, who also made an important reservation in the case of the arable subsidy.

promote immediate State intervention, when closer study might have suggested that history would once more repeat itself. It may be observed that the price-level of agricultural commodities stood at 159 when the Tribunal was appointed, and a year later was only three points lower; that agricultural land had, during its deliberations, been relieved, once more, of half its burden under the head of rates; that farmers' other outgoings had markedly declined; and, finally, that farms, even in East Anglia, were maintaining their value, and prospective tenants were numerous and insistent. In brief, it might be claimed that the recovery of British agriculture (not excluding that practised in arable districts) was already proceeding upon normal lines and in a form which might have been recognised during the early life-time of the Tribunal. Instead, there emanated from it those two hastily compiled *Interim Reports*, the recollection of which is apt to militate against the undoubted weight and value of its later, and fully weighed, findings.

The *Final Report*, although by a majority it persists in characterising the situation in May 1924 as "the present emergency," makes certain additional recommendations (several of which had been included in the *Interim* findings) which, it rightly affirms, would, if put into execution, "only produce their effects gradually and cumulatively over a considerable period of time." Among these will be found the re-establishment of District, but not centrally-controlled, Wages Boards; the provision of better credit facilities; the encouragement of agricultural co-operation; the downward revision of railway rates; the granting of increased funds for research purposes; the augmentation of State small-holdings; a fuller utilisation of education. The fact that the majority of these proposals can be found enshrined in the *Reports* of the previous Commissions, in no way detracts from their value; some had been given partial effect to before the existence of the Tribunal, others have been, or are being, legislated for as a direct result of its labours.

Before discussing in greater detail the separate portions of the *Final Report*, it may be advisable to estimate the reception which, in its entirety, the policy of the Tribunal, thus revealed, will receive from different classes of the community. Farmers, who are naturally the most interested persons, after welcoming the appearance of the *Interim Reports*, with their suggestions of substantial direct and indirect pecuniary assistance, considered themselves aggrieved by the failure to carry out the latter, and will remain, as always, professedly indifferent towards the more

circuitous methods of help subsequently put forward; they are frankly hostile to the formation of Wages Boards. In this connection, as evidence of the uncompromising attitude so often adopted, it is perhaps not unfair to quote the recent reply of a farmer to the question, "What do you wish the State to do for agriculture?" He answered, "D—n well leave it alone!" The majority of economists, after deprecating the introduction of either of the two major alternatives—the proposed subsidy or the hinted-at Protection—will endorse the expenditure foreshadowed from National funds to complete, during the next decade or two, a recovery already well in evidence; some form of wage-control they will consider to be not only justified, but called for. Politicians of almost every shade of opinion will claim that their individual panaceas, with the one exception of land nationalisation, have been vindicated. The urban taxpayer and rate-payer, after digesting the *Report*, will consider that, while matters would have been far worse from his standpoint if its recommendations had been adopted in full, yet quite sufficient outlay has been ear-marked for an industry which, in the course of three generations, he has come to regard as of secondary importance to himself. As ever, therefore, where British agriculture is concerned, there can be looked for no unanimity of opinion.

The *Report* itself must, from its nature, be divided into sections and discussed piecemeal. The first quarter is devoted to the findings of the Chairman, Sir William Ashley, Professor W. G. S. Adams, and the Assessor, Mr. C. S. Orwin; next follows a slightly larger individual report from Professor D. H. Macgregor, while the remainder of the volume is occupied by six extremely valuable *memoranda* from the pen of the Chairman and two from that of the Assessor, together with sixteen official, or semi-official, appendices containing historical and statistical *data*, in the main confined to foreign countries. The terms of reference imposed upon the Tribunal must be borne carefully in mind when analysing the two divergent reports of its members. Sir W. Ashley and Professor Adams, together with Mr. Orwin, in effect endorse the implications contained in these terms; Professor Macgregor obviously does not. The former trio accept the lead offered them, and emphasise the lessons to be drawn from the methods employed and the output secured by British and Continental farmers respectively, clearly holding that increased home production of wheat, and the corollary employment of more workers, is not only desirable but essential. They aver

that, short of some form of "Protection," nothing but the extension of arable dairying and stock-farming can maintain the tilled area of the country, and that, "if such experiments [*i.e.* arable dairying] are not carried out, or do not demonstrate the financial feasibility of the new methods, Great Britain must be content to see its agriculture dwindle greatly in all those respects which promote food production and employment on the land, or else it must resort to measures which will be essentially protective in character by whatever name they are called." Again, they "are clear that if the nation wishes to take steps which offer a reasonable chance of staying the present decline in the arable area, such measures as we have suggested in our *Interim Reports* are the best means of preventing the immediate conversion of land from tillage to grass." Yet the decline had, by June 1923, only reduced the arable land, even in England and Wales, to a figure, which, in the words of an official statement of the Ministry of Agriculture (*Agricultural Statistics*, 1923, Pt. I. p. 5), "was still in excess of the ploughed area returned in 1913 and 1914."

Again, these signatories hold that the productivity of British agriculture is smaller now than it was in 1870, and proceed to lay stress upon the strides made in the meantime by certain foreign countries. Granted that, since the former date, the area under the plough and the number of workers have both seriously declined, yet in the case of every crop for which figures have (since 1885) been recorded there is a heavier yield per acre at the present time. The point to stress is, surely, the former backwardness of those other countries at the time when, in the words of the *Report* itself, "British agriculture stood in the forefront as the most efficient and productive system of agriculture in any country." What has the passage of these fifty years seen? It has seen the methods of British farmers eagerly copied by half the continent of Europe, it has seen these same men—despite ever-increasing overseas competition—improving their technique and even enhancing their great reputation as raisers of crops and producers of meat; their head of cattle has increased; they have added to their equipment fruit, vegetable, glass and market-gardening, and they have built up a world-wide demand for their pedigree stock. Moreover, they have consistently paid their employees higher nominal and real wages than have those with whom their methods are compared. It would be opportune to draw attention to the dissimilarity between the standards of living attained among the rural dwellers here

and abroad, did not the members agree that "the lot of many small-holders in foreign countries is one of considerable hardship, involving an exiguous return for the labour, and especially the family labour, which is put into the holding," while they "do not forget the facts which indicate the superior economic [both pre-war and post-war] position of the British agricultural wage-labourers in comparison with those of other European countries." While, therefore, the problem presented to them of suggesting means whereby "a living wage" (*i.e.* increased spending power) could be assured to the workers in this country, together with a concurrent increase in the output of food, is, in effect, represented as solvable by no agreed methods, it is, in addition, questionable if this section of the *Report* does not go some way towards modifying the assumptions contained in the terms of reference themselves.

It is not possible to discuss *seriatim* the very complete and authoritative descriptions, to be found in this section, of the systems of land-tenure, the incidence of tariffs, the growth of the co-operative movement, or the endowment of research and education abroad. It is, of course, nowhere claimed that the widespread adoption of methods which have proved efficacious in other countries, and often at varying periods, would achieve similar results here and now. One nation has been compelled by a predominating export trade to graft co-operative marketing upon arable dairy-farming, another has, for military and semi-political reasons, maintained its arable area by means of tariffs. Neither compelling factor is present in this country. There are, however, other directions in which State assistance has been rendered abroad, and in connection with which the recommendations of the Chairman and his confrères will be widely acceptable. The importance they attach to education, using that word in its widest sense, will be seen when it is stated that, out of the forty-four separate recommendations contained in this part of the *Report*, no less than twenty-five are concerned with the means of organising the farmer and of improving his knowledge, not only of the industry itself, but also of its surroundings.

The expenditure of large sums of money in research and in organisation is apt to be cavilled at by farmers themselves, but it is perhaps the most efficacious of those "long-term causes," whose results always seem slow in appearing. But the labours of the early "Improvers," and afterwards of the first scientists who approached the many problems connected with crop and

animal husbandry, appeared to make little progress decade by decade, and even at the present time none would claim that the work of the laboratory is immediately reflected in the fields. If, therefore, modern agricultural education embraces the appointment of new classes of officials, the setting up of Farm Institutes for the benefit of workers' sons, the provision of free book-keeping, and the utilising of propaganda in favour of co-operation and improved marketing methods, it is none the less likely to bear fruit in the passage of time. An adequate return for present expenditure will be reaped if the coming generations of farmers possess some economic knowledge in addition to the "scientific" learning transmitted to them from their forbears, and if their labourers have had the benefit of specialised instruction after leaving school. If farmers themselves were consulted in regard to the appointment of such persons as County Organisers, they would probably make one suggestion, which is that the right place for these officials is in the fields rather than in the lecture-room. They claim that they are always willing to learn individually, but not collectively. It must be admitted that there is much to be said for this point of view, when discussing the duties of a new, but highly successful, type of worker.

An unexpected proposal, but one of considerable potential value in connection with land-tenure, is that the "Evesham Custom" should be investigated with a view to its possible extension to all agricultural tenancies. This system, at present confined to a restricted area and to a special type of farming, has much to commend it, since it virtually places in the hands of the outgoing tenant the selection of his successor, and secures to him compensation for his improvements through his own negotiations. Neglecting the larger issues involved, one possible objection against its general adoption might be that it would involve the risk of too many farms changing hands without sufficient publicity, and that there might accordingly be less opportunity for new-comers to enter a district. No doubt this risk would be extremely small, but it is one the exact magnitude of which a Committee of Inquiry could easily assess.

The findings of Professor D. H. Macgregor will probably commend themselves to the majority of agricultural economists. He clearly considers that there is little occasion for alarm in regard to the state of British agriculture, *per se*, and would appear to agree that, in its practices, as well as in the amenities it provides, it can bear favourable comparison with other countries. Grounds of national defence are the only ones upon which he

would discuss the advisability of increasing artificially our output, and, even here, he recommends deferring a decision by our military advisers until "the international future is more clear, national finance less strained and the post-war settlement is more complete." The possibility of a fresh decline in the arable area and in the number of farm workers he is prepared to weigh against an annual cost equivalent to that of a battleship, and it is clear that, personally, he thinks the expenditure unnecessary. He refers with satisfaction to our passage through the years 1914–18, when the size and basis of our pre-war agriculture was put to the test, and emerged satisfactorily. He might, indeed, have dilated upon the fact that, as a result of unprecedented efforts, our output of wheat was only increased from one-fifth to barely one-third of our total requirements, while the proportion of imported supplies lost by enemy action was (with the exception of one comparatively brief period) unexpectedly low, and further that, almost alone among the belligerent nations, we escaped the rationing of breadstuffs.

It would, however, be unfair to suggest that a policy of *laissez-faire* is put forward for British agriculture by Professor Macgregor. He definitely favours the continued creation of State-supplied small-holdings, the encouragement of afforestation, and the formation of Wages Boards, endorses the findings of his associates with reference to organisation, finance and transport, and, in fact, supports the numerous long-term methods of assistance previously referred to—it is indeed announced in the beginning of the *Report* that, in this respect, the two portions are "largely supplementary one of the other."

It is when he is dealing with such questions as the size and economics of holdings, the use and remuneration of man-power and, again, when he is stepping upon such proverbially dangerous ground as the international comparison of agricultural systems, that the extreme value of his *Report* stands out. He approaches these problems with an open mind, hears, in effect, the customary *ex parte* statements, and presents his findings based on impeccable statistical and historical foundations.

Perhaps the most striking commentary upon this minority *Report*, is to quote in full one of its concluding paragraphs (No. 287), which runs as follows: "The facts do not show that there is ground for depreciation of British agriculture as a whole. It pays wages that are high as compared with those in other European countries; the yield of the area which is under the chief crops compares favourably with that of the areas under the same

crops abroad; while the actual decline of the agricultural population, as tested by male persons employed, has not over the whole length of our period of reference been so startling as is often supposed, or so rapid as that of other important European countries. Farmers are not responsible for the natural conditions or the national policies which have affected the form of cultivation that is most profitable; subject to the conditions, the cultivation of the land in Britain cannot be described as inefficient. Considered as a craft, British farming has in its time taught a great deal to other countries; considered as an industrial organisation, it may now learn something in turn." If the above paragraph is placed beside the terms of reference, it becomes difficult to reconcile the two statements; certainly the words of Professor Macgregor do not suffer in the process.

When the monographs and *appendices* are turned to, a mine of not otherwise easily accessible material is found. As of outstanding importance must be mentioned three "Considerations" (National Defence, National Health, Economic Stability), by Sir W. Ashley, and two admirable notes on "Tillage" by Sir T. H. Middleton. The Chairman is again responsible for lengthy descriptions of Danish, German and French agricultural practices, and Mr. Orwin contributes a brief account of the present-day relationship between landlord and tenant, which no doubt turned the attention of the Tribunal towards the Evesham Custom as a means of achieving "dual ownership." In another contribution, entitled "The Position of English Agriculture," Mr. Orwin is less convincing, for he accompanies a description of the nineteenth-century decline in arable farming with diagrams illustrative of the area of crops and numbers of live-stock in three selected Counties (Derby, Notts and Leicester), which carry the story up to 1913. If he had added comparative figures for 1923, he would have found that his conclusions were no longer fully justified, since all the County areas under the plough as well as those of almost all the individual arable crops are now above the level of 1913. The wheat acreages in 1923 varied from twenty-four per cent. up to fifty per cent. larger; the combined root acreage was superior; so, to a greater degree, was that devoted to potatoes; the numbers of cattle had increased, and of pigs there were, in one instance, half as many again; the total tilled area in these three Counties was 28,000 acres larger; there was a larger population in the Rural districts in 1921 than was the case in 1911. Incidentally, as they stand, the charts indicate that, even in this particular district, the

decline, as elsewhere, had been virtually stayed from about the year 1906.

The catholicity of the remaining *appendices* will be appreciated when it is mentioned that the British Ambassador at Rome is responsible for an account of the agricultural policy of Italy, that a translation from a report of the Prussian Ministry of agriculture deals with farm wages in that country, and that land-reform in Czecho-slovakia is treated of by a native. There are two tabular statements of the utmost value to students in particular and to economists and agriculturists in general: the first details the total expenditure on rural education by Local authorities and the Central Government, the second enumerates (in terms of English weights and money values) the import duties in force in 1914 and 1923, respectively, in the United Kingdom, the British Dominions and certain foreign countries.

The labour involved in compiling the final *Report* must have imposed a heavy strain on members of the Tribunal, but they will have the satisfaction of knowing that, for many years to come, it will be consulted as the most authoritative document available whenever matters rural are under discussion among politicians, historians, economists and, doubtless, even among farmers. If the policy they have advocated is embodied in two separate *Reports*, their whole-hearted interest in the industry is reflected throughout both these documents. They have agreed on numerous points, and their unanimity will be reflected in the condition of British agriculture in years to come. None will recriminate because they have found it impossible to agree upon the vexed question as to the relative position it should, in future, occupy among the activities of the nation. The Tribunal has wrought as much, or more, than any of the more cumbrous bodies that preceded it, and it has accomplished its task in a fraction of the time occupied by them. What more could be asked of it?

J. A. Venn

INDIVIDUAL AND SOCIAL INTERESTS IN RELATION TO SAVING

A GENERAL survey of economic progress during the last two centuries certainly gives the impression that the " capitalist system " of private saving and investing has resulted in benefits not only to individuals who saved and invested (and their heirs), but also to the non-saving " proletarians." These two centuries, however, have been characterised in a marked degree by the discovery of new processes, and especially by cheapening of transport, and such discoveries are not necessarily an accompaniment of saving pure and simple. The question whether and how saving as such benefits the non-savers cannot be settled merely by this kind of observation, therefore. It has to be examined analytically and is then seen to be not so very simple a matter when we take account of the fact that the saver gets interest and he or his heirs may ultimately spend both interest and capital.

That the process of saving and investing affects the interests not only of the individuals who save, and who borrow, but also the interests of society in general, has usually been taken for granted, and non-socialist writers have ordinarily assumed that the process is necessarily beneficial (excluding the case of loans to spendthrifts). Marx and other socialist writers have argued in the contrary sense. There is still some obscurity about the question, and it is hoped that the following discussion may help to throw some further light on it.

A striking passage in Mr. Keynes *Economic Consequences of the Peace*, reviewing the century preceding the war, is as follows :—

" The railways of the world, which that age built as a monument to posterity, were, not less than the pyramids of Egypt, the work of labour which was not free to consume in immediate enjoyment the full equivalent of its efforts." The implication seems to be that saving and investing by a limited number of individuals somehow imposed an abstention on society as a whole, and that not only the capitalists who saved, but their workmen also, made present sacrifice for the advantage to be obtained in the future.

Whatever room for quibbling there may be about the word " abstention," it is undeniable that the capitalist who finances

the building of a railway is foregoing some present enjoyments which he could have obtained, and in return he gets interest on his capital later on. The writer ventures to suggest, however, that it would be quite a novel idea to Mill—and to the majority of later economists[1]—to say (as Mr. Keynes evidently implies) that saving and investing by the capitalists imposes present abstention on the other members of society who do not get any interest later on.

A useful way of approaching the question is to postulate, in the first place, a socialist community in which there is no scope for private saving.

Cassel[2] discusses the theory of interest in a socialist State, and shows that under stationary conditions there could be, theoretically, no interest, but that if wealth is growing, people are necessarily being paid to-day for producing things which will not be available at once, and if they spend their current wages on buying what is immediately available, the price of available utilities must be raised above the cost of production, and the State will get interest. In the stationary state also, people are producing to-day things which will not be available until more or less distant times in the future, but on the other hand the people of to-day are getting the products of the past, and when production is merely replacing what is consumed or worn out, what is being received from the past just equals what is being provided for the future, and the worker may be said to be getting the exact equivalent of what he is producing. In a state of growth, however, Cassel does not admit that this can be the case. He says (p. 117): "The essence of the matter is this: so long as the community already possesses the whole of the capital that it wishes to use, it can afford to supply waiting for nothing; but as soon as it enters upon an increase of its capital, fresh waiting is needed, and this cannot be supplied without a sacrifice on the part of the present labourers."

If the distinguished author means that there is a sudden change

[1] *Vide* Mill, Book I. ch. vi., in which a very unsuccessful attempt is made to discuss this question. As regards more recent treatises on Economics, the writer has not been able to find much, if any, attempt to face the question at all, but there is some discussion bearing on it in Mr. Henderson's *Supply and Demand*, e. g. p. 128, where he says: "It is the saver who must wait, whose consumption must be postponed to perhaps a distant future; but *at no time does his saving result in a smaller aggregate of consumable goods for other people*."

Robertson, *Money*, discusses the same question on the supposition that growth of wealth is being financed by bank credits, and the implication seems to be (p. 91) that the community in general are compelled to make present abstention by an increase of prices, and later on they stand to lose again by having to pay interest.

[2] *The Nature and Necessity of Interest*, ch. vi.

from a stationary state to one of growth, the writer would agree, but not if we postulate a continuous state of growth which has been going on indefinitely in the past and continues at the same rate in the future. The economics of the state of growth, it is submitted, require further examination. The socialistic State is, for theoretical purposes the simplest, and a study of it will throw light on the whole question. The conditions which would be imposed on the community by a socialist State which provided for growth of wealth are not so very different from those which are imposed by the actual economic system.

In general there is growth going on in all directions and people being paid now for production of increments of all kinds of utilities which will not be available till later. The degree of delay between payment of cost and realisation of utility varies enormously; also the relative proportion of labour required for replacement of what is worn out or consumed on the one hand and for *increasing* the stock on the other hand varies very much, according to the length of the productive process and the durability in use of the product. It is well recognised that the annual production for a year of new houses, whether merely to replace those which become obsolete, or to add to the total stock, bears a much smaller relation to the stock in existence at any given time than is the case with, say, coal or fish. It is also the case, that of the labour spent in production of houses, to maintain a given rate of growth of the total stock, a much larger proportion has to be devoted to increase, as distinct from replacement, than is the case with coal or fish, for the same rate of increase of available supply.

If the supply of house-room were to be increased steadily at the rate of 2 per cent. per annum, a considerable proportion of the building trade production would be occupied in providing the increase of the stock of houses. But if the fish-supply were similarly to grow at 2 per cent. per annum, it would be approximately true to say that at any given time 98 per cent. of the labour of fishermen was engaged in replacement of current consumption and only 2 per cent. in providing for growth of supply.

In these complex conditions the first question to be asked is, whether theoretically the supply actually available for use at each moment of all the various kinds of goods can be made to grow without disturbance of price-level. If so, under what conditions?

One may feel, without any algebraical discussion, that theoretically it must be possible, but it helps to clarify thought

and to bring out the nature of the conditions if we can get an algebraical analysis.

For this purpose it is necessary to get the problem simplified to the point at which algebraical formulæ can express quantities of goods and prices, the amount of saving and of interest accruing and the rate of wages earned, under conditions of growth.

The simplest case of growing community is that in which wealth and population both grow at a uniform rate. The hypothesis that the population grows is not essential, but it is easiest at first to make that supposition, and to suppose money to increase at the same rate, so that the utility of money to the average individual is unchanging, if the conditions can be made such that relative prices do not alter.

Most growth is mere multiplication of existing types of goods accompanied by growth of population. New inventions have been important, it is true, in promoting growth of wealth in the last two centuries, but their occurrence is not an essential condition. The simplest hypotheses have to be taken first; other conditions are best considered as variations from the simplest type. Only so can their special effects be disentangled from those which are not special to them.

The simplest hypothesis is that the community is socialistic, all production being paid for by a State bank which is, at first, the sole capitalist. Producers, however, are paid wages and buy goods at the price which adjusts demand and supply.

We suppose that the producers are paid wages by a State bank which is the owner of all products. It does not sell these products outright, at any rate in cases where there is appreciable durability in use. The wage-earners may be regarded as using their wages to hire the current use of all products. Of course in the case of things like bread, hiring is the same as buying, but to buy with present income an overcoat which will last several years is buying future services of the coat and involves some degree of saving. The intention, at present, is to eliminate altogether individual saving, and the simplest thing is to assume, for mathematical purposes, that all income is spent currently in hiring.

Part of production, a considerable part, may consist of personal services. This is, however, simply a particular kind of "production" which, for the most part, falls within the class of products of brief durability.

Calling the various products A_1, A_2, etc., the hiring price of any product, such as A_1, is determined by the relation between

the amount of it available for immediate use and the amount of money which the wage-earners are willing to spend on it. We suppose the State bank to act like a commercial producer and to adjust supply to demand so that no one kind of production is more profitable than another.

If, however, the State is paying out the same rate of money wages all the time to an increasing number of producers and they spend those wages at once on hiring what is already available for use, there must be, as Cassel points out, an excess of receipts in money over what had been previously paid out for production. There must be money interest, in fact, and we assume the relative quantities of goods in existence to be so adjusted that the demand for their hiring will make the rate of interest received the same for all goods, and as these quantities are to grow at a uniform rate, the relative magnitudes of the stocks available for use at any one time remain unaltered.

It can be shown that the conditions can be fulfilled and a uniform level of prices maintained, that the rate of money interest would be identical with the rate of growth of physical wealth and of money, and the aggregate amount of interest received by the State per unit of time would equal the total of increase of money needed to finance increase as distinct from merely replacement production.

The rate of interest would not have been due to any perspective discounting of the future by individuals or by the State. In fact it is implied that the State [1] regards the future, as being of exactly the same importance as the present, and production is simply arranged on that basis, the rate of interest being determined simply by the rate of growth of wealth.

I have assumed that population was growing at a uniform rate and that the growth of wealth was made to conform to that rate. If physical conditions permitted, however, wealth could be made to grow faster than population, and the rate of interest would correspond to the rate of the growth of wealth, if a uniform level of prices [2] were maintained by increasing the total money paid out as wages at the same rate as available wealth was increased (money wages per head being increased in so far as growth of wealth exceeded growth of population).

[1] Individuals are assumed to have no opportunity to save money or to buy capital values. If we like, however, the assumption can be that they have no desire to do so.

[2] But under these conditions demand for different kinds of goods might not remain distributed in an unchanged manner, and individual prices might vary, of course.

It is not my purpose, however, to discuss the theory of interest beyond remarking that this is the most elementary view of interest, from which a consideration of more complex conditions should start, and it may well be called a productivity theory.

Money interest could be avoided if the State employed always a constant amount of money, reducing the rate of wages as population grew. Prices would then fall correspondingly, and it can be shown that the State would always receive back exactly the amount of money paid out in production for each class of goods if production were distributed in exactly the same way as in the previous case.

The main interest lies, however, in comparing the socialistic State with one in which individual saving is allowed and takes place and in considering what difference this makes.

We can also go on to consider the difference made if individual saving falls systematically short of what would be required to finance the increasing production, and also to consider the effect of a change in the rate of saving and a change in the rate of growth.

Before putting the matter in algebraical form, it will make things clearer if we take an arithmetical case. Say the quantity of shipping in existence in 1900 is 20 million tons, and this is to increase at the rate of 2 per cent. per annum, and the 20 million tons have come into existence as the result of previous growth at this rate. Suppose a ship takes one year to build and lasts twenty years. If the 20 million tons had always been maintained in existence, without growth, the average age of ships would be ten years and the amount falling out of use would be a million tons per annum. That would be the rate of production required to maintain the stock. Actually, however, in a state of growth, the ships existing at any particular moment are not of average age ten years, but less than that. Hence the rate of production in 1900 which would simply replace the then existing stock as it fell out of use would be, at the moment, less than a million tons per annum. In addition there has to be production which will result in the required rate of increase of the total stock, and the total rate of production will consist of what is required for replacement and what is required for increase.

If we took coal instead of ships, coal having very brief durability in use, there would be very little importance in the different ages of the stock existing at any moment and the rate of production required merely for replacement would be practically the same as if a uniform stock were being maintained.

Algebraically, however, we simply have differences in the

durabilities, and similarly, if we like, differences in the times taken for production.

All engaged in production are producing something which in some degree, however small, is only going to furnish the whole of its utility at some time in the future, but the wages are paid out now and are spent on hiring what is already available for use. We require algebraical expressions connecting the quantities of goods in existence, the rate of production, rate of money wages paid out and prices of goods which can be bought or rather hired.

For theoretical purposes growth is best treated as continuous and similarly interest and discount. Let the quantities of the various products in existence at any given time be P_1, P_2, etc., and the rate of growth r per unit of time (*i.e.* if $r = \frac{1}{50}$, and the unit of time is a year, growth is at the rate of 2 per cent. per annum). The state of growth is assumed to have been going on uniformly for an indefinite period in the past.

Let the times required for production be m_1, m_2, etc., and the durabilities of the products n_1, n_2, etc. units of time, and we may assume that none of the n's or m's is infinite.

It is sufficient for present purposes to regard the products as produced simply by labour. If, in fact, we had intermediate goods, not of direct use, *e.g.*, if P_1 were required merely for the purpose of producing P_2, that is essentially the same as if m_2, the time required for producing P_2, were longer than otherwise it would be.

It may be objected, however, that if we look at it that way, the time spent in producing any present-day article goes back indefinitely into the past. Ships are built with use of materials and machinery made by means of previous materials and machinery, and so on. Practically, however, we are dealing with a series of diminishing fractions as we go backwards in time. Of the labour spent 100 years ago in making things which ultimately, through a series of processes, assist in building ships this year, a very small part only is attributable to this present-day ship. Far the greater part of the final utilities which were to be expected from the labour of mechanics, etc., in 1824, and which were the operative cause of that labour being applied, were enjoyed long before the present day. It is legitimate to cut out the small fractions of labour of the past and to regard each thing as beginning to be produced at some definite time.

It may equally be said of the n's that things do not last, with uniform utility, for an exact length of time. A motor-car, for instance, gradually wears out and cost of maintenance

gradually increases. It is not like Oliver Wendell Holmes' "Wonderful One-Horse Shay," every part of which had strength exactly proportioned to the wear and tear on it, until at last every part gave way at the same moment. It is legitimate, however, for our present purpose to suppose things to be like the "one-horse shay."

The unit of product may be taken in each case to be that produced by unit of labour, in time m_1 or m_2, etc., respectively.

Taking the first product, the quantity in existence and in use at whatever point of time we chose as zero, is P_1, and at time x, this quantity is to have increased at a uniform rate, and therefore at time x is to be P_1e^{xr}, and we have to ascertain the expression for the rate of production at time x which will result in rendering available for use $P_1e^{r(x+1)}$ at time $x + 1$, and so on.

If we, at first, regard m_1, m_2, etc., as small in comparison with n_1, n_2, etc., the delay between effort and reward due to time spent in production is ignored, and we have only to consider the delay due to durability of goods when produced. The m's may then be neglected.

What is being produced in the interval x to $x + 1$, which may be regarded as so small that variation of the rate of production within the interval can be neglected, consists of (1) what is required for replacement only, and (2) what is required for growth. The latter is simple enough, namely, the fraction r of the total existing at x, *i.e.* rP_1e^{xr}, r of course, being small, corresponding with the smallness of the unit of time. (If, for a year, $r = \frac{1}{50}$, for a day it $= \frac{1}{50 \times 365}$). What is perishing at time x or, therefore, what is required for replacement will also be an invariable fraction of the total existing at x, since the age-distribution of the products existing at different times will not vary. Let the fraction be λ, which is determined by the following equation.

The total produced at x perishes at $x + n_1$, and is therefore equal to the replacement part of the production at $x + n_1$.

$$\therefore\ P_1e^{xr}(\lambda + r) = \lambda P_1e^{(x+n_1)r}.$$

$$\therefore\ \lambda = \frac{r}{e^{n_1r} - 1} \text{ and } r + \lambda = \frac{re^{n_1r}}{e^{n_1r} - 1}.$$

When we take time spent in production as not negligible, but equal to m_1, m_2, etc., for the various products, then what is produced at x for increase will not be available (taking the first only of the products) until $x + m_1$, so that it must then add the increment r to the then existing total. The growth production at x must therefore be $rP_1e^{(x+m_1)r}$.

All that is produced at x perishes at $x + m_1 + n_1$, and this must be replaced at that date (by what was started, for maintenance only, m_1 units of time previous to that date, *i.e.* at $x + n_1$), and this will be $\lambda\ P_1 e^{(x+n_1+m_1)r}$, and we must have this $= (r + \lambda)$ $P_1 e^{(x+m_1)r}$.

$$\lambda = \frac{r}{e^{n_1 r} - 1} \text{ as before.}$$

λ being the fraction of the total existing at any time which is perishing at that time.

The total rate of production at time x consists, therefore, of

$rP_1 e^{(x+m_1)r}$ for increase, and $\frac{r}{e^{n_1 r} - 1}\ P_1 e^{(x+m_1)r}$ for maintenance, or a

total of $P_1 \frac{e^{(x+m_1+n_1)r}}{e^{n_1 r} - 1}\ r$.

It may be noted that in the case of perishable goods, or, in fact, any goods not of considerable durability, $n_1 r$ is very small, and the expression for the maintenance production, $\frac{r}{e^{n_1 r} - 1}\ P_1 e^{(x+m_1)r}$,

approximates simply to $\frac{1}{n_1}\ P_1 e^{(x+m_1)r}$.

This would be a sufficiently correct expression for all the goods and services whose durability did not run to a number of years, but the more complex expression is useful as being applicable to all classes of goods.

As unit money is paid for unit production, the expressions for production are also the expressions for money income paid out to producers and used by them for hiring the current use of the existing stock of goods.

The only conditions under which there could be uniform growth, unchanging price level and uniform interest obtained by the State on all classes of production, are that the relative quantities of the various classes of goods are so adjusted that the demand will lead to just as much money being spent in the hire of each class of goods as is currently spent on the production of that class.

Suppose this adjustment to be in existence. The quantity of the first class of goods is $P_1 e^{xr}$ at time x, and the money currently spent on hiring it is $e^{m_1 r}\ P_1 \frac{e^{(x+n_1)r}}{e^{n_1 r} - 1}\ r$ per unit of time.

The rental value is therefore an annuity $e^{m_1 r} \times \frac{e^{\cdot}}{e^{n_1 r} - 1}\ r$ for n_1 units deferred m_1 units and is independent of x.

The present value of an annuity for n_1 years, taking continuous discount at a rate i, is $\frac{A}{i}\frac{e^{in_1}-1}{e^{in_1}}$, so that at time $x+m_1$, when the annuity begins, the present value is unity $\times\ e^{m_1r}$ if $i=r$. This suffices to give compound interest at the r for both the period of delay m_1, and for the delay involved in the durability of the article in use. (It has been assumed that the unit money for production is paid out at x and not spread out over the period m_1. The money thus paid out in successive units of time thus increases as production is increased. It would increase in just the same way if the unit money for each unit of production were paid out gradually over the period m_1, *i.e.* at the rate of $\frac{1}{m_1}$ per unit of time. No important difference would be made, but the expression would be more complex.)

At the time x, when unit money is paid out for production of any class of goods, the present value of the ultimate product is thus equal to the cost of production.

If the amount of money spent on hiring any class of goods were less or more than the amount currently applied to the production of this class, this would imply that the quantity in existence was different from what has been assumed. Supposing it be so, and P_1, let us say, is larger than has been assumed; call it, therefore, P'_1. If uniform growth is to be maintained the quantity of production must be correspondingly larger than before—and labour being assumed to be limited, the quantity existing and the quantity of production of something else must be correspondingly smaller—say P'_2 is less than our previous P_2. There is no more money paid out to producers in the aggregate than before, and they are to spend it as they please.

The demand price for P'_1 must be less than before and for P'_2 greater. The State will not get a uniform rate of interest on these two classes of production, and the fact would indicate that labour could with advantage be transferred from the one production to the other.

The total of interest being received by the State at time x is r times the cost, *i.e.* r times $P_1e^{xr}+P_2e^{xr}+\ldots$ and is identical with the total of new money required to finance production for increase, as distinct from production for maintenance.

Now let us consider a similar community in which individuals may, if they choose, save income and deposit their savings in the State bank, but all spending is still hiring, not purchasing outright. Further, we assume that this has been the case all along.

The object is to keep distinct the amounts saved and the amounts spent. We could arrive at similar conclusions by supposing people to purchase capital values of goods, but by regarding all spending as hiring and all saving as depositing money in the bank, which utilises it for production and pays interest, we keep the two conceptions of saving and spending separated.

The familiar supposition is that growth of wealth is provided for entirely by individual saving, and we will make the supposition that in the uniform state of growth the aggregate of individual saving per unit of time is to be just equal to the amount required for financing the increase, as distinct from the maintenance production.

It might seem at first sight that the level of prices will be less than in the former case, when no one saved. The whole of the income from production is not now spent on hire of currently available wealth, but only as much as is received for maintenance production. We still suppose the same rate of money wages paid to producers, and if the level of prices were less, the non-savers would get more for their money.

The savers, however, are allowed interest on deposits, and they have been saving and depositing all along. They have to their credit at time x deposits aggregating an amount equal to the value of goods in existence ($P_1e^{xr} + P_2e^{xr}$, etc.) because the deposits have grown exactly at the rate of the goods. Nominally the State bank still owns all the goods, but the savers have a kind of mortgage equal to the whole value of them.

The amount of interest due to depositors at time x is at the rate of $rP_1e^{xr} + rP_2e^{xr}$, etc., *i.e.* the same as the amount provided for increase of production, and the same as the amount being currently saved.

The total money income payable to people is the amount paid out as salaries for production, plus the amount due as interest, an amount equal to the latter is saved and the total currently spent on hire of goods is, as before, equal to the total paid out for production, and the level of prices is as before.

It is not essential to suppose that each person who has savings continues to save all the interest; some may spend the interest, but the aggregate of savings may be maintained equal to the amount required for uniform growth if others start or increase savings to a sufficient extent to make up for those who begin to spend the interest or the capital of previous savings.

If savings are not maintained at this rate in the aggregate,

then, unless new money is created to a sufficient extent to provide the necessary amount to finance the growth of wealth, the uniform rate of growth cannot be maintained, consistently with unchanging prices.[1]

If we adhere, for the present, to the hypothesis of the one monopolistic State bank, and assume that the deficiency of saving has always occurred, the rate of growth of production might still be assumed to have been maintained. If the rate of saving had always been, say, only half the rate of increase of money required to finance the increasing production, the savers would have accumulated only half the amount of deposits which they would have accumulated if they had always saved an amount equal to the whole of the money required for new production. The uniform rate of growth, however, and uniformity of prices would only have been possible if the State bank had always provided the necessary additional money for new production. The situation at time x would then be that the amount of interest due to savers would be only half what it had been in the previous case, when they had always saved the whole of the money required for growth, and they would still be saving an amount equal to the total of interest due to them. The State, having provided the additional money necessary for maintaining the rate of growth of wealth, would have acquired the unmortgaged ownership of half the property.

On the hypothesis that production can be equally efficiently carried on on any of the systems, the position of the non-savers would seem to be the same in any event; whether the State has financed all production and has the unencumbered ownership of all wealth, or whether a minority of private individuals have acquired the substantial ownership of all property, we arrive at the, at first sight, anomalous conclusion that the ordinary non-saver, or proletarian, is in exactly the same position, gets the same wages and pays the same prices—supposing each system equally efficient on the side of management and production, and the body of savers always save an amount equal to the total of interest currently accruing to them.

If we had started with the consideration of a case in which saving by an individual was regarded as a new thing, a change

[1] It has to be borne in mind that we are not assuming any improvement in methods of production which would enable production to be carried on profitably with falling prices. In the absence of such improvement, a condition of falling prices would necessarily dislocate production by private enterprise, though theoretically the State could carry on under those conditions by correspondingly reducing wages.

from what had previously been taking place, we should not have arrived at the apparently anomalous conclusion that saving did not alter the level of prices. On the contrary, we should find that whilst the saving was being made, price-level would be reduced below what it would otherwise have been, and when, at a later time, the saver spent the interest, or both the interest and the capital, the price-level would be raised. The rest of the community would get more real return for their money during the time of saving and would get less at a later time—at least if we are isolating the question of saving pure and simple from that of the development of new and improved processes of production.

If we revert now to the statements of the previous writers mentioned at the beginning, and keep in mind the uniformly growing community in which provision for growth is made by savings of individuals who make deposits in the State bank, we must agree with Mr. Keynes that this imposes on the community as a whole a distribution of productive effort which is different from what it would be if no such savings were made; and if no omniscient State financed the growth of production a greater supply of immediately available wealth could be obtained by stopping provision for the future; but this is also true, though in a less degree, of the stationary state. If we ask, however, what happens to the non-saver if there is an *increase* of savings, the answer is that so long as that continues he is better off, because his wages will go further (assuming that production is not dislocated by a fall of prices). Saving merely as such does not impose any present sacrifice on the non-saver. It is the disposal of the subsequent interest which does so, whether that be " spent " by the capitalist or again saved and invested.

Mill is right in his conclusion, though confused in his reasoning when he tries to argue (though in different words) that an increase of savings benefits the workman immediately.

Mr. Henderson's dictum that at no time does saving result in a smaller supply of consumable goods for other people is true only if he (like Mill) refers to saving only and ignores subsequent spending of capital and interest, or even interest only.

Cassel's statement needs modifying to the extent that in a condition of *uniform* growth, whether financed by the State or by private savings, the workman would be, at any moment, getting from the past as much as he gave to the future substantially as in the stationary state. He might be said to get the " whole product," but of course he might get more if he took what had been provided by the past and did not contribute to the future.

The maintenance of a uniform price-level with growth is possible only if money is increased at the same uniform rate. The mere fact of saving does not provide the growth of money. Under conditions of private property and private banking, creation of bank credit has to be always anticipating saving in some degree, though theoretically the length of time involved in the anticipation may be very small. The point is most easily grasped, however, if we revert to the case of the socialistic State.

The mere fact that interest is earned by the State bank does not automatically provide a growth of money available for financing the increase of production. The causation is the other way round. It is because new money is being continually created that a level of prices is maintained which gives the State interest, and so long as it pays uniform wages to a growing population for increasing production, and the population spend the money on current utilities, the level of prices must yield interest.[1]

The extent of new creation of money will depend, in a sense, on the interval which elapses between paying out money as wages and getting it back again, but whatever the interval may be, the rate of creation per unit of time is always the same percentage of the amount existing. Suppose money paid out at time x comes back at $x + 1$, being then paid in for the use of goods existing at x, in respect of the use of them for the interval x to $x + 1$, and regard the goods as marketed not continuously, but at the beginning of each interval. The amount of money paid out to producers at x may be called Ix. This comes back to the bank at $x + 1$, but at that time a larger amount, I$(x + 1)$ has to be found to pay out to producers and can only be found by *anticipating* the future receipt of the difference between I$(x + 1)$ and Ix.

In a *régime* of individualism it is mainly bank credit which takes the place of the State creation of money. This must always be anticipating savings, or else the fund from which money interest can be obtained will not be in existence and growth would involve the continual lowering of price-level, which would dislocate private business enterprise, excepting in so far as a *Deus ex machinâ* in the shape of new inventions and cheaper processes might happen to arrive.

[1] Soddy, *The Inversion of Science*, seems to assume that in the conditions under consideration there would be no interest obtained by the State. That, it is submitted, could not be the case, but it has to be remembered that the State is assumed to apply the whole of such interest to financing new production, *i.e.* "saving" it all, so there is no interest in the sense of an income spent on buying current utilities.

A smooth state of growth, with uniform price-level, is possible if the two conditions are fulfilled: (1) growth is uniform, (2) saving and the creation of bank credit always continually equal the amount required for financing growth as distinct from maintenance production. If these conditions are not fulfilled, there is almost inevitably involved not only disturbance of individual prices, but disturbance of the general level of prices, and, under ordinary conditions of individualism, oscillation of trade activity. It is not possible, however, to enter on a discussion of these questions in the present paper, but reference is made to these problems merely for the purpose of pointing out that a study of the conditions of uniform growth, even though that condition does not actually exist, is useful as a preliminary to the consideration of the effects of irregularity.

C. F. BICKERDIKE

ROSSEL ISLAND MONEY: A UNIQUE MONETARY SYSTEM

THE island of Rossel lies about 200 miles south-eastward of New Guinea. Approximately 100 square miles in area, it is inhabited by a primitive population numbering about 1000 in all. The Rossel Islanders have characteristics and customs which differentiate them from the Melanesian-speaking peoples of the neighbouring archipelago, but none are so striking as the unique currency system, by the aid of which they carry on their mutual trafficking in pigs and concubines, in canoes and wives.

The outstanding features of the Rossel Island money are that, of each grade of the tokens in use, there is a virtually unchanging stock that has come down to the present generation from time immemorial, and that into the grading of the tokens —their value-relationships to one another—there enters the novel principle of a time-element or interest-element, in place of the more familiar principle of simple proportionality.

The articles which it is here proposed to call money are made from shell, and are of two kinds, named Dap and Kö respectively. A single piece of Dap money, which we may conveniently designate a coin, is a polished bit of shell a few millimetres thick, with flat or slightly curved surfaces, having an area varying from 2 to 20 sq. cms., and of almost any shape, though usually roughly triangular with rounded corners. In colour the coins vary from white through shades of orange and red, especially on the outer more polished surface. The coloration is generally uneven. The shapes and colours suggest that these coins were made from a mollusc allied to the Spondylus, from which the well-known sapi-sapi beads are made. Every coin is perforated within a few millimetres of one of its edges and generally at a corner. A single coin of Kö money consists of ten discs roughly shaped out of some shell, possibly that of the giant clam, each disc of the ten having approximately the same diameter and thickness. The individual discs are not money, for a set of ten discs is only exchanged as a whole.

There are twenty-two main values of Dap money, having separate names, but these names are not descriptive of the values. Certain of these values are subdivided into two or three classes, so that there are about forty distinctions of value altogether

in the case of Dap money. For the purposes of the present account these sub-values (which seem to be of little importance) will be ignored, and only the twenty-two main values will be considered. As the names given to them are somewhat clumsy it seems simplest to use here the numbers 1 to 22 to designate them, taking 1 for the lowest, and 22 for the highest value.

Although any piece of Dap is generally at once recognised by the native as being a 1 or an *x*, it is difficult to obtain any definite characterisation of these classes. Very roughly, one can say that the lower values are white or dark red and rather clumsier in shape, while the higher values are lighter red to yellow and more delicate in shape—certainly the higher the value the more pleasing to the eye. This lack of a serial arrangement of attributes to mark value would be almost impossible if additions were continually made to the stock of money; but the money of Rossel is peculiar in that it is not replenished by fresh additions, except in the case of Nos. 1 to 6 or 7; but such money, although bearing the appropriate value-names and obeying the same laws of exchange as the money regarded as original, is recognised as belonging to a different order. In the case of Kö money (the second of the two varieties), it is believed that there have been no additions to the original stock, which was made in a remote past by Wonajö, the supreme god of Rossel (as also was the main stock of Dap money). The shell for the Dap was obtained from a bay at the east end of Rossel; the shell for Kö from a bay on the north side of the island. Both these places are classed with the "yaba," or sacred places, which occur throughout the island, the rites in connection with which serve to preserve the uniform and beneficial order of the universe. If the money on the island be non-renewable and there be not too great an amount of it, it would, of course, be possible for every coin to be individually known; in this case, there might be no general distinguishing marks of the 22 classes, for, in the case at least of Dap, every coin has its perceptible individual characteristics. In the case of Nos. 13 to 22 there is little doubt that all the coins belonging to these classes are individually known by all natives of any consequence in the financial world. Moreover, each coin belonging to Classes 15 to 22 has an individual name in addition to its class-name. It is, therefore, clear that in the case at least of these there need be no defining character of the class other than enumeration of its members. It was possible to ascertain the quantity of Dap on the island of values 15 to 22, which gave a total of 81 coins all distinguished by individual names.

Of Kö money the distinctions of value are fewer, there being a total of sixteen values. The names of these are the Dap names with suffix "kagnö." For instance, the lowest value Kö is called "Tebuda kagnö," Tebuda being the name of No. 7 of the Dap series. The remaining fifteen values of Kö, which may be designated by the numbers 8 to 22, are denoted by means of the names of the remaining higher values of Dap. Thus the name of No. 22, the highest value Dap, with suffix "kagnö," denotes the highest value Kö. Unlike the Dap money, the values of Kö money vary with the variation of one simple character, namely, size of the discs. These discs vary in diameter from about $1\frac{1}{3}$ cms. in the case of the lowest values, to about 3 cms. in the case of the highest.

To pass on to the consideration of how these values are interrelated; in the first place, the same principle of value-relationship applies within each of the two monetary systems, the Dap and Kö, but no member of the one series has any recognised exchange-value in terms of any member of the other, though there is an equivalence for certain purposes between Dap and Kö bearing the same name. Generally speaking, wherever payments of Kö are made, payments of Dap also form part of the transaction—a service or commodity is priced in terms of so much Dap and so much Kö. There are, however, a number of commodities which are priced in terms of Dap only, mostly commodities of low price. It is possible, also, that there are some commodities priced in terms of Kö only—which is most likely to be the case with commodities which pass mainly between women, for it is said that Dap is essentially men's money, while Kö is essentially women's money, though the latter idea seems to be merely a traditional fiction. In the present account only the Dap side of payments will be considered, even though similar important payments of Kö may also be involved.

In nearly all instances of real money throughout the world, where there are coins of different values, a higher value coin is generally regarded as equivalent to so many of the lowest value coins or at least as being composed of so many recognised units of value. This is not the case on Rossel; the value of a coin x in terms of a coin y is expressed by the length of time y would have to be let out on loan in order that x be repayable. If the thought of the islanders were sufficiently systematic, then all the twenty-two values of Dap could be expressed in terms of No. 1 and time; No. 2 would be No. 1 at interest for a few days—No. 22 would be No. 1 at compound interest for several years.

Their ideas, however, are not fully systematised to this extent, but the native does systematically apply the principle that a No. x if lent for a few days requires the return of a No. $(x + 1)$—if lent for a rather longer period the borrower will be required to repay a No. $(x + 2)$, and so on.

Now, if a large number of commodities are priced in terms of a small number of commodities, it will hardly be legitimate to call these latter commodities money, unless they also are systematically related to each other. This type of pseudo-money is all that occurs in the neighbouring Massim area, where, except by a complicated and forced process of calculation, no single commodity can be said to be worth, for instance, x sapi-sapi beads of best quality. The Massim are far removed from having any commodity whose main function is to act as a standard of value and medium of exchange. A statement of this kind can, however, be made with far more directness in the case of Rossel Island, even though in this case commodities are priced in terms of particular Dap and Kö, and not in terms of any Dap and Kö which add up to the required figure. (This, of course, would require a knowledge of the number of units of value in each number Dap and Kö, which is lacking.) The way this comes about is as follows.

Suppose an individual A wishes to buy a commodity whose price is Dap No. x. A may possess Dap coins, more or less in value than No. x, but not any No. x. He, therefore, borrows a No. x from B and pays for the commodity with this. During the time which elapses before repaying B, he becomes successively liable to No. $(x + 1)$, No. $(x + 2)$, and so on. If he have one of these values he repays B and all is square. Whether he borrows for a long or a short period does not really make any difference to A so long as he has at the time of borrowing at least as much money as he borrows, either in his possession or preferably lent out with interest, for A's opportunities for lending are presumably as great as B's opportunities—that which makes it necessary for A to borrow from B equally makes it necessary for X to borrow from A in the long run. Owing to the peculiar value-relationships of the Rossel money, money must change hands very many more times in order to effect a single purchase than is necessitated by any of the more usual monetary systems. Given this mobility then we can say that a commodity which is priced in terms of a particular value of Dap is indirectly priced in terms of any Number of the series.

It would be well to elaborate further my earlier implication

that there can be said to be a unit of value in the case of Dap and Kö, even though it be impossible to say that a No. x is k times a No. y. If we assume that time is priced, then, of course, the problem is simple—if the interest for unit time, *i.e.* for x to become $x + 1$, is taken as 5 per cent., for example, then, in terms of No. 1, No. 2 is No. 1 + 1/20 No. 2, No. 3 is No. 1 + 1/10 No. 1 + 1/400 No. 1, and so on, in the compound interest series. But, on the whole, it distorts the facts to say that there is a definite rate of interest. It is better, therefore, to substitute for the statement that x is k times a No. 1 the statement that x is a No. 1 of so many months ago, which brings in a second unit of value, time. The common denomination being understood, then the price of any commodity or service might be put in terms of time, *e.g.* "a wife costs a year, a house two years, a basket of taro a week, and so on." This does, I believe, express the native point of view more clearly than to imagine a more or less evaluated rate of interest.

Since there are very few of the high-value coins on the island, and since there are important commodities and services that must be paid for by means of these high-value coins, they move about a good deal (though there is an exception in the case of the highest two or three values). The borrowing and lending of coins is, in fact, so important that there exists a special class of persons who act as agents for these transactions; they are denoted by a special name, which may be translated by the term "broker" without much change of sense. These brokers derive their income by keeping their capital in motion and by a process somewhat analogous to the activities of a London bill-broker—by borrowing at a lower rate of interest and discounting at a higher—and practise a magic by means of which they claim to act on the minds of their debtors, making them repay within the customary time, while the minds of their creditors are affected in the reverse direction.

Since the series of values is finite, the question naturally arises as to what happens in the case of the loan of a high-value coin. Since there are only a few of these coins—seven each of the three highest values—many loans are liable to overreach, by the ordinary mechanism, repayment-value No. 22. It is found that the normal method of repayment of loans of Nos. 18 and above is of a special kind. If, for instance, a No. 18 be borrowed, security is given, generally a stone axe of the type used as money on Sudest. This security is returned on repayment of the loan; but instead of the repayment of a higher value

Dap at the end of the required period, a payment of low-value Dap, known as "Döndap," is made at the beginning of the period of the loan, and the Original No. 18 is repaid at the end of the period instead of a No. 19 or higher value. The Döndap for a short-period loan of a No. 18 is generally a series of one each of Nos. 1 to 10; for a longer period there will be two or three each perhaps of Nos. 7 to 9 or 10. For a No. 19 the Döndap will end at No. 11 or perhaps No. 12. If the loan be for several years, as it is occasionally, there will be three or four repetitions of these interest-payments. A good deal of ceremonial attends such payments of interest and it is generally the occasion for some feasting and dancing. An important part of such interest-feasts, or "Dogo," as they are called, is the handling of the money by a number of people, this apparently confirming the transaction. Such feasts are also the occasion for other monetary transactions; for, even when a single low-value coin is borrowed, it must be touched by a number of people, who, as witnesses, act as a safeguard to the lender.

Security was referred to above, which generally takes the form of a ceremonial stone axe of the Massim type; sometimes, however, and this seems rather anomalous, security takes the form of a higher value Dap than that for which it is acting as security. This may be because there is little use for values 19 to 22 at the present day; it seems to be very rare now for there to be any transactions involving payments greater than No. 18. A few years ago, however, No. 20 had an important use as compensation for ritual murder. The death of a chief used to involve the eating of at least one victim, frequently drawn from a neighbouring friendly village. The compensation of the relatives of these victims involved payments whose ramifications are said to have extended over ten years or more. At the present day, No. 18, of which there are twenty coins on the island, is involved in payments for wives, for "ptyilibi" (polyandric wives) and pigs. When a No. 18 passes from person to person, it is handled with great reverence, and a crouching attitude is maintained. Nos. 19 to 22 are so sacred that they are always kept enclosed and are not supposed to see the light of day. Apparently they have little or no work to do now, except as security, and are owned only by chiefs. No. 22, of which there are seven coins, is inherited in the male line; and, apparently, the chiefs who own these are the most important on the island.

It would be impossible within the limits of this paper to describe the details of the financial ritual in connection with payments

for wives and pigs, as they are very complicated. In the case of a polyandric wife, bought by five or six men, the method of payment of the No. 18 is ingenious. If there are five husbands, A pays the girl's father a No. 18, B pays A a No. 17, C pays B a No. 16, D pays C a No. 15, and E pays D a No. 14; but, apparently, A does not pay E a No. 13, and B A a No. 12, and so on, as we should expect. It is, of course, an unequal division of the cost, for D pays less than C, B and A, and E pays the most, provided No. 14 is more valuable than the difference between No. 18 and No. 17.

In conclusion, it may be pointed out that Rossel Island money is money in the strict sense of the term. It serves as a medium of exchange and a standard of value, and it is not desired for its utility for other purposes, even for ornament or display. Indeed it is even considered "bad form" to make any sort of display of one's wealth of Dap and Kö. How such a peculiar monetary system came into being it is difficult even to conjecture. The conception of "interest" is rare in Melanesia and New Guinea, though it occurs in simple form in parts of the Bismarck Archipelago. This would point to some exceptional cultural influence which reached the island of Rossel but no other part of this extensive region, unless we suppose that a "higher" culture, containing the germs of the peculiar features of Rossel, once extended over a large area, throughout which it has since degenerated, leaving a vestige on Rossel in the shape of its present fantastic monetary system.

W. E. Armstrong

REVIEWS

The Mathematical Groundwork of Economics: An introductory treatise. By A. L. BOWLEY, F.B.A., Professor of Statistics in the University of London. (Oxford: Clarendon Press. Pp. 98.)

A LONG-FELT want is satisfied by this clear, concise and correct statement of the leading propositions and methods which mathematics contributes to Political Economy. A saving knowledge of that doctrine may be acquired here more readily than in any other treatise, English or foreign, with which we are acquainted. The learner is led from the simplest species of transaction on to "multiple exchange," and thence to dealings in products and the factors of production. By steps that are neither violently abrupt nor tediously circuitious he reaches the heights from which the mutual dependence of all economic quantities can best be contemplated. At those heights, too, are observed some curiosities of theory, like Alpine flowers, found only at great altitudes.

The treatise is not merely introductory. The maturer student will be edified by it. He will be confirmed in the belief that his study is worth pursuing. The authorship of the treatise guarantees the importance of the subject. The author is a statistician of the hard-headed English type, who walks in the way of Tooke and Newmarch and Giffen; applying ascertained facts to important practical problems. Measuring the growth of wages and the proportions in which the national income is distributed, he has contributed more than most economists to the formation of intelligent opinion about popular schemes for the reconstruction of industry. It is not to be supposed that such a man would turn from investigations of national importance to formulate the mathematical theory of economics if with the literary economists he regarded that theory as moonshine. If challenged to show what fruit our branch of science bears we can at least reply that it is assiduously cultivated by one who knows what good fruit is, having produced it in great quantities.

The importance of particular theorems as well as of the general theory is enhanced by Professor Bowley's work. Several

of the propositions reached by mathematical reasoning present to common sense the appearance of paradox, and are accordingly advanced with diffidence by the theorist. He may reflect, however—with Dr. Marshall when discussing exceptional cases of international trade—that speculation about the results of conditions which have never been experienced has often proved serviceable in connexion with cases which have no superficial resemblance to those conditions. Such speculation is encouraged by the example of Professor Bowley, who does not hesitate to restate the theorem of Pareto and W. Johnson that raising the price of an article may lead (through a change in the marginal value of money) to a larger consumption of the article. After this the literary economist can with less plausibility make fun of the proposition that a specific tax may under certain circumstances benefit the consumer.

Professor Bowley confirms some propositions, not merely by his authoritative endorsement, but also by means of a variant proof. Thus with respect to the proposition that in a régime of monopoly a tax in general raises price more in the case of increasing than of decreasing returns, his proof is not identical with that offered in the ECONOMIC JOURNAL (Vol. IX, p. 293 *et seq.*, p. 312). Professor Bowley supposes the demand-curve to be a right line; and on that supposition shows that the rise of price will be less than half the (specific) tax in the case of diminishing returns, more than half in the case of increasing returns. As we look at the matter, the supposition of rectilinearity is justified, as being intermediate between two cases about whose relative frequency we are uninformed, the concavity and the convexity of the demand-curve. Professor Bowley's use of the "curve of marginal supply prices" forms another instance of a view not identical in form while substantially in agreement with that offered in the ECONOMIC JOURNAL (Vol. XXIII, p. 210).

Variant paths in mathematical reasoning are generally interesting. But they are not always preferable to the beaten road for ordinary use. So no disparagement is intended when we remark that our author's approach to some topics is not that which we recommend as best. Thus he introduces the theory of supply and demand by the conception of two individuals interchanging two commodities. He may plead indeed the example of Jevons; and is entitled to the explanation of Jevons' formulæ which he quotes: that they are "regarded as representing the transactions of two individuals in, or subject

to, the law of a market." That explanation was offered by an apologist for Jevons; one whose own view was that "the simplest case of exchange is where there are two large groups of uncombined individuals dealing respectively in two commodities, *e.g.* corn and money." There is surely some difficulty in conceiving an individual not (with Berkeley) as a particular representative of a genus, but rather (after Plato) as representing a multitude, a number of competing wills; for of such is uniform price the resultant. It is not easy to carry out the direction "consider three monopolists, A, B, C, and three commodities, and one other person, D"; who is to "possess but not monopolise" a certain commodity. The attributes of D, who is at once a sole dealer and clothed with the properties of a market, seem somewhat incongruous. Again, our author's approach to the theory of equilibrium in a régime of increasing returns may present difficulties to beginners. The author himself, of course, perceives the truth which Professor Pigou has thus expressed: "Provided that certain external economies are common to all the suppliers jointly, the presence of increasing returns in all together is compatible with the presence of diminishing returns in the special work of each severally" (*Economics of Welfare*, p. 192)—a passage which our author perhaps intended to cite by a reference which seems to be misprinted (Bowley, p. 37, referring to Pigou, pp. 439–441). The tiro may be puzzled by the seemingly contradictory statements: "there can be only one producer in the long run under constant or increasing returns" (p. 50), and "the position is stable when at it the supply-curve crosses from below the demand-curve on the left as in the figures" (p. 59), one of which shows a horizontal, the other a descending supply-curve.

Our author's originality shows itself in the construction of new phrases as well as of new arguments. Here, too, there is room for some difference of opinion as to the value of the innovations. The "*offer*" curve is used to designate a curve which occurs in Marshall's representation of the terms on which exports are exchanged for imports. As the locus is symmetrically related to supply and demand, a term which seems to emphasise the side of supply is not felicitous. Nor are we satisfied with the author's definition of "Joint supply" as occurring "when X_r and X_{r+1} are produced by the same process in a determinate proportion (*e.g.* gas and coke)." Mill, indeed, has so defined the cognate term "Joint cost of production." But now the term is more usually and usefully employed to denote a relation between

products analogous to the relation between articles of consumption when their utility in our author's appropriate phrase is "complementary." Original writers, however, are privileged to use their own terminology; *dabiturque licentia sumpta pudenter*, as Horace rules about the coinage of new words.

But does the licence extend to symbols? Or is the condition on which the licence was granted fulfilled by our author when he boldly substitutes a new-fangled symbolism for the traditional notation of the Differential Calculus? The following extracts will show the character and the motive of the innovation.

"If A, instead of working for himself, is selling Y to B who pays him in X, giving x units for y units, he stops when

$$\delta\ {}_1U(x) = -\ \delta\ W(l)."$$

[We should explain that ${}_1U(x)$ represents the utility which dealer No. 1 derives from the quantity x of the commodity X; $W(l)$ measures the disutility of l the quantity of labour exerted.] The passage then continues

$$\text{"}\frac{\delta\ {}_1U}{\delta x}\ \frac{\delta x\,\delta y}{\delta y\,\delta l} = -\frac{\delta W}{\delta l}.$$

The ratio of $y : x$ equals the price, p, of X in terms of Y $=$ $\delta y : \delta x$, since it is the same for all units. Proceeding to the limit we have A's offer $\frac{1}{p} \cdot {}_1U_x D_l(y) = -W_l$, while B's offer is $x \cdot {}_2Ux = y \cdot {}_2Uy$ (p. 41)."

"Formerly this expression $[D_x y]$ was written $\frac{dy}{dx}$. Since this suggests a fraction and not the result of a process, the form here used is to be preferred" (p. 80).

We must leave it to mathematicians to pronounce upon the force of this argument. We are content to follow the example of Demorgan, who adopts the traditional notation without discussing its merits in the abstract. "Without discussing this point we are inclined to consider the universality of the notation of Leibnitz throughout the whole of the civilized world, and the fact of most of the discoveries made since the time of Newton, both in pure mathematics and physics, being expressed by means of it, as itself a sufficient reason for adopting it" (*Differential Calculus*, p. 34). We hope, therefore, that in a second edition of Professor Bowley's treatise some place may be found for the traditional notation, at least occasionally and with reference to the more fundamental formulæ.

This recommendation extends to and indeed especially applies to the Appendix, which is described as a "summary of the mathematical ideas and formulæ used." Adapting the words of Demorgan to our case we may say that the fact of most of the developments in mathematical economics since the time of Cournot being expressed by means of it (the notation of Leibnitz) is a reason for adopting it in a praxis intended to assist the student. With this modification the Appendix may be recommended as imparting to the general reader that modicum of discipline in mathematics which is required for the application of mathematical reasoning to economic problems. In supplying this want the Appendix has few competitors. The most formidable, as far as we know, is Professor Irving Fisher's *Infinitesimal Calculus*. But our author's summary has the advantage in respect of brevity. It has also the great advantage of being presented along with the subject-matter to which it is applicable. The text and the Appendix afford in a very high degree what our author has called "complementary utility."

F. Y. EDGEWORTH

The Labour Theory of Value in Karl Marx. By H. W. B. JOSEPH, Fellow and Tutor of New College, Oxford. Pp. 174. London (Oxford Univ. Press, Humphrey Milford). 1923. 4*s*. 6*d*. net.

WE learn from the Preface that this book has grown out of lectures on "Justice and Wages" delivered in 1913.

"If, as I believe, Marx's theory is definitely false and there is neither any means by which to settle how much wealth each man creates nor any rule of justice to determine what share of the total wealth created each ought to have, it is worth while to try to show this" (18).

It is not censure but commendation to say that in showing it Mr. Joseph follows the lines of many predecessors, especially Böhm Bawerk, that model of conscientious thoroughness (Joseph, p. 79, etc.).[1]

He strains the case a little against Marx (44) by doubting whether Marx admitted that socially necessary wages varied with the standard of living. A passage on Capital (Vol. I, p. 156) can hardly mean anything else; and Marx was simply following Ricardo, who in his turn had learned his lesson from Malthus. Ricardo writes (*Principles*, Ch. V, On Wages, p. 52):

[1] See Miss Butlin's review of "Karl Marx and the close of his system," ECONOMIC JOURNAL, VIII, 1898, pp. 375–8.

"It is not to be understood that the natural price of labour, even estimated in food and necessaries, is absolutely fixed and constant. It varies at different times in the same country and very materially differs in different countries. . . . Many of the conveniences now enjoyed in an English cottage would have been thought luxuries at an earlier period of our history." So in the place cited Marx speaks of necessaries as a "historical product" depending on a country's degree of civilisation. It follows that the "law of brass" does not forbid natural wages to go on rising with the standard of living.

Also the *advocatus diaboli* might say that Marx in confining his theory of value to goods of the factory system (a system of machinery and "power" even more than of tools and hands), was taking no larger liberty than Bagehot, who confined himself to modern business, in his economic writings.

Finally, in view of the later Austrian discussions on "imputation" (*Zurechnung*) and complementary goods, the possibility of any assignment of the worker's share in the product need not have been ruled out so absolutely as it is by our author: "Where a number of co-operant factors are indispensable to a single result, you cannot determine how much each contributes to it" (165).

But, with every allowance, the theory that value comes wholly from labour, and profits from unpaid labour, is a hard one to defend. Mr. Joseph shows very fully how the 3rd volume of "Capital," with its recourse to competition and averages and prices as distinguished from values, has failed to reconcile the theory of Marx with the obtrusive facts of everyday trade and industry (Joseph, Ch. III, 52 *seq.*). In the chapter (IV) on "homogeneous labour" (86 *seq.*) into which labour Marx supposed all the varieties of skilled labour to be boiled down,[1] the difficulties of attempted resolution and recomposition are patiently brought out. A rough scheme of compensation suggested by Adam Smith (*W. of N.*, I, x.) has found general acceptance among economists. Marx goes beyond its rough equivalence, and translates the one into the other with exactness (Joseph, 41, etc.); a given quantity of skilled labour is equal to a greater given quantity of unskilled "homogeneous" labour, of so many time-units. Now, it must be said that, even after the translation, in our present world the articles produced are not exchanged according to the socially necessary labour-time of production;

[1] Perhaps a pleasanter metaphor than the original "congealed" to which our author adheres, *e.g.* 41, 61, 87.

nor is the employer whose business needs most hands the employer who reaps most profits; an employer may gain by reducing hands.[1] The "organic composition" of his invested capital may mean much constant and little variable; yet he may gain higher profits than another employer with much variable (or many hands) and little constant (smaller plant and machinery). If the true "value" is made by the "labour-time," the prices of the market disregard it. In his 3rd volume Marx admits this himself. He describes "prices of production" as restoring to the employer what he has spent on constant and variable together, at about the same rate of profit for every business, whatever the "organic composition" (Joseph, 55, 56, 71). The competition of employers brings about a levelling and raising of the rate of profit, making it more or less what it would be under "values"—seldom the same.

In times long gone by, goods may have been exchanged according to true "values" and in the far future they may be so again. Marx admits it is not so now, and yet when we began to read his *Capital*, Vol. I, we were led to believe we were reading about things as they are (Joseph, 57 *seq.*).

True value is otherwise conceived by our author. "Things have value because men want them; this and not the labour in them is the fundamental fact, and, since different men want different things and want the same things in different orders of preference, there is no absolute value," though in the same market there is uniform price (117). "In any community the value of a thing tends to be thought of as something definite and fixed because it is considered in relation to what is conceived to be a proper standard of life in the community, not in its varying relation to the position of each member of it" (123, cf. 139, top).

Without having much else in common with old-fashioned classical economists, Mr. Joseph sees clearly that "economic value is a matter of economics, not of ethics; that anything worth £1 (be it a material thing or so many hours' labour) means that others will deliver, in exchange for it, their power to get so much of another thing as £1 will fetch; and, if they will not, there is no more to be said than that it is not worth £1. It is beside the point to say that it ought to be" (151). There is such a thing as a just price, but that is the one governed by an agreed rule: "In distribution justice is: proceeding according to the recognised rule" (152). It follows that all inequality is not injustice (154).

[1] Mr. Joseph says reducing the wages bill (67, 69), but the paradox is that fewer *men* are employed.

It seems also to follow that all injustice is irregular administration. "That men should not agree either with one another or each always with himself, in their orders of preference—this is neither right nor wrong but merely inevitable. And out of this it comes that the exchange values are as we find them" (155–9). "There are plenty of forms in which unearned increment arises under a non-capitalistic system; indeed, so long as the value to a man of what he receives in exchange for his own labour or produce fluctuates through causes independent of himself, there will be increment, and decrement also, which he has not earned."

The book is sane and helpful. Its discussions give good training in Applied Logic. Nevertheless it might well be the last of its kind. After the appearance of "*Capital*, Volume III," other refutations of Volumes I and II were hardly needed.

JAMES BONAR

Economic Principles: an Introductory Study. By A. W. FLUX, C.B., M.A. Second Edition, revised. (Methuen & Co., Ltd. 1923. Pp. viii + 305. Price 12*s.* 6*d.* net.)

MR. A. W. FLUX's *Economic Principles* was published first in 1904 and was reviewed in Volume XIV of the ECONOMIC JOURNAL. In this revised edition of his work, Mr. Flux has left untouched the old Chapters I–X and the Chapters on "Free Trade" and "Taxation," but has recast Chapters XI–XV, which treat of "Money," "International Trade" and the "Foreign Exchanges." The five chapters treating of these subjects have now become seven.

In the chapters dealing with "Money and the Mechanism of Exchange," "Money and Prices" and "The Supply of Money," the obvious alterations in statements of fact and the necessary additions required by the changes of nineteen years have, of course, been made. Portions of the exposition have been compressed; portions have been omitted. We no longer hear of cowrie shells and wampum and beaver skins. In the careful examination of the relation between the Supply of Money and the General Level of Prices—the name "quantity theory" and the historical instances of the first edition, supporting the theory, are abandoned—the *direct* effect upon the general price level of variations in the volume of transactions is more clearly exhibited than in the earlier discussion. But, on the whole, the experience of recent years and the body of theory, which that experience has produced, especially on the part of American economists, have

modified comparatively little Mr. Flux's treatment of the monetary subjects which he discussed in the first edition.

A new and important subject, however, is introduced in Chapter XIII—the various economic consequences of falling and rising prices and the fundamental changes which they involve in the relative position of large social classes. This is an admirably lucid and well-balanced chapter. Mr. Flux would seem to conclude that if it were possible to choose between rising, steady and falling prices, steady prices would be chosen, or, if that ideal cannot be attained, then very slowly falling prices are to be preferred. While recognising that a fall in prices is ordinarily accompanied by discouragement to enterprise, Mr. Flux, following Dr. Marshall, indicates another aspect of the question. Falling prices, however much they may discourage enterprise, tend to raise the level of competence and of energetic effort by weeding out those relatively less competent and less energetic.

The part played by hand-to-mouth producers and merchants in hastening the transmission of a fall in prices is worthy of note.

But the most interesting and suggestive exercise in economics which this new edition presents is the discussion of "Values in International Trade" and the "Foreign Exchanges." During the past ten years gold has not been available for export as a corrective of disturbances in the balance of international payments. The course of a country's foreign trade has been powerfully influenced by fluctuations in the rates of exchange between its money and the monies of other countries—fluctuations which were necessarily more violent than was the case when gold flowed freely from country to country. This and other aspects of theory it was not necessary to emphasise in text-books, which assumed as normal the free international movement of gold. Under present conditions, however, it is desirable to connect closely the treatment of the theory of international exchange with that of the foreign exchanges.

The traditional approach to the problem of international exchange was from the standpoint of the relative costs of production of different commodities in different countries. One conclusion reached from this standpoint was that for a country to carry on a completely one-sided foreign trade was impossible. In attempting to take advantage of the light thrown upon the problem of the Foreign Exchanges by the experience of recent years, Mr. Flux finds it necessary to abandon the traditional treatment of international exchange and to approach the question

from the standpoint of relative prices. His conclusion is not, however, different from that reached by the traditional route. Taking two countries (A and B) in commercial relations with each other, he finds that the rate of exchange between the two countries cannot be maintained permanently at a level which will make all the transportable commodities of the one cheap in terms of the money of the other. A state of the exchange market is created which would ultimately destroy a position in which all commodities might be bought in country A for use in country B more cheaply than they could be obtained from the domestic resources of B. The foreign exchange market thus provides automatically, in a revision of the rates of exchange, a corrective for the condition which forces a one-sided trade.

In order to deal with a problem so complex, the employment of hypotheses and the making of abstractions are, of course, to some extent essential. This harmonious conclusion, however, this inevitable attainment of a rate of exchange under the influence of which mutual exchange of commodities may take place profitably, is based upon three very significant assumptions. It is assumed that (1) the trade is confined to two countries, (2) there are no complications caused by non-commercial elements in the balance of indebtedness, and (3) the adjustments of the foreign exchange market are not disturbed by currency inflation.

Two small errors might be noted. One occurs in the chapter on " Values of Different Currencies," p. 205. Can we say that the exporting of gold tends to bring about a fall in prices in the exporting country, " *except* in so far as it is accompanied by simultaneous and corresponding *increase* in the quantity of money work to be done " ? The second is on p. 238, where there is a mistaken reference, in a note, to the Chapter XIII of the first edition.

The re-cast chapters reveal the same strength and the same weakness as the unrevised portion of the book. There is the same firm grasp of general principles, the same power of compact analysis, the same dispassionate and judicial temper. The weakness—due to a desire to achieve exactitude and comprehensiveness of statement—is the somewhat clumsy and complicated mode of presentation, which must render much of this " introductory study " repellent to the class of student for which, presumably, it is intended.

J. LEMBERGER

Control of Credit as a Remedy for Unemployment. By J. R. BELLERBY.

A DEMOCRATIC community subsists upon controversy. On any practical choice in public affairs upon which a difference of opinion exists a decision is reached by way of public discussion. The result is that a disproportionate amount of thought is directed towards those questions on which division is most acute, and on which a decisive conclusion is most difficult to secure.

A writer who sets out, not to expose differences, but to exhibit agreement, may render a very valuable service, both in recording the progress made towards the formation of a definite and informed public opinion, and also in restoring a due sense of proportion. He puts the all-absorbing differences of opinion in their place, and gives proper weight to the comparatively neglected topics of agreement.

Mr. Bellerby, a Member of the International Labour Office, has approached his subject from this point of view. He has attempted "to show that almost unanimity of agreement is to be found on certain conclusions of vital interest for the solution of unemployment." As the title of the book indicates, the conclusions are in the direction of monetary stabilisation through the control of credit. His thesis "involves neither the acceptance nor the rejection of any theory of cycles; and there are hardly any explanations with which it is entirely incompatible."

This independence of particular theories of the trade cycle is a condition making for agreement on the practical remedy, and among the names that recur in Mr. Bellerby's pages are several that are by no means associated with the monetary theory of the trade cycle.

Readers of the ECONOMIC JOURNAL are aware that Mr. Bellerby has very definite and reasoned views of his own on the subject of credit control. In the present book, in conformity with its purpose, he has kept his own views in the background, except in so far as they are contained in the necessary comment by which the opinions quoted from other writers are related together.

The book is very well done. The agreement revealed on the salient principles is not the result of forced interpretations. The author understands those from whom he quotes, and scrupulously respects their several standpoints.

The real conclusion is summed up at the end of Chapter VII.

"Unemployment is a scourge. If the manipulation of one factor in industrial organisation may lead in any way to a diminution of this evil, the immediate duty of all concerned would seem to be to strengthen this factor where possible, and determine the soundest criteria for its use. The discount rate is a weapon ready to hand. Its exercise requires no enabling legislation, and its application is even now in part controlled. How then may it be gripped and used with greater force and certainty?"

When Mr. Bellerby turns in Chapter VIII. to "Measures for Rendering the Discount Rate more Effective," the material with which he works is less satisfactory. Here he is getting away from the realm of the academic economist, and the treatment is rather fragmentary. He concludes the chapter with some observations on the policy, now so much in vogue, of "co-ordinating the execution of all work done under public authority, with a view to reserving such work as far as possible for periods of unemployment." Mr. Bellerby doubtless felt bound to bless this proposal owing to the wide acceptance which it has received (by the International Labour Conference among others). But that he has some suspicion of its fallacious character is suggested by his recommendation of it as "slightly deflationary during a boom and inflationary during a depression." It will only work so, however, if the public works are financed, as he suggests on p. 112, by a "fund" reserved for the purpose, that is to say, an accumulation of idle money. If the works are paid for by *borrowing* during a period of depression there is no inflationary tendency, and no improvement in employment. It is, in fact, a mistake to suppose that the undertaking of public works is an *alternative* to an expansion of credit as a remedy for unemployment; it is merely a *pretext* for expansion of credit, and if it is financed otherwise than by inflationary methods it does nothing.

The final chapter of the book is devoted to the need for international action, and ends by quoting the Genoa Resolutions.

R. G. HAWTREY

Insurance for All and Everything. By SIR W. H. BEVERIDGE, K.C.B. (London: The Daily News, Ltd. 1923. Pp. 40. Price 6*d.*)

THE risks which social insurance is required to cover are divided by the author into five main classes—old age, industrial accident, sickness (including prolonged incapacity to work prior to old age),

unemployment, and widowed motherhood. And it may come as a surprise to many to learn how much is already done in this country in regard to four of these risks, or how near we have come to a complete system. "The money," says the author, "at this moment being devoted to social insurance is sufficient, if properly used, to provide not only for present needs, but for all the extensions of the system now urgently required." His very careful analysis of the position bears out this statement whilst emphasising adequately the gaps in, and defects of, existing measures. The chief source from which further funds will be forthcoming consists in the probable future surplus of the unemployment fund. This at first sight appears paradoxical. But the increases that have been made in contributions, which now amount roughly to 2*s.* 2*d.* per week for men and 1*s.* 8*d.* for women, are already yielding a surplus. In nine months the debt of the Unemployment Fund to the Treasury was reduced by £4,000,000, and the author calculates that under normal conditions contributions should yield an annual surplus of not less than £25,000,000. This, it may be added, was prior to the extensions of benefit which are now before Parliament.

In these circumstances there are two alternatives, to reduce contributions to more normal figures, or to use the surplus to extend and complete the system of insurance. Obviously things cannot be left as they are, when the debt to the Treasury is liquidated. "It is all wrong in principle that an unemployment insurance fund should make a profit during a crisis of severe unemployment. Its funds ought to be based on making a profit in good years to meet the losses in bad years; if it makes a profit in bad years as well, its premiums are too high for its benefits." The author strongly urges, however, that instead of reducing premiums, the anticipated surplus should be "diverted . . . to other social purposes," in other words, the re-organisation and completion of the system. The existing heavy contributions are, as he says, being paid with very little discontent, and this provides an opportunity for extending insurance without imposing additional burdens.

At present four of the five main risks are provided for more or less adequately. "There are obvious imperfections in nearly all the existing insurance schemes, as well as gaps between them and many minor risks uninsured." Sickness Insurance appears, on the whole, to be the most complete. Unemployment Benefit, in the author's view, needs to be entirely dissociated from the Poor Law, to be made universal by bringing in agriculture and

domestic service, and to receive certain other modifications. One, at least, of these changes is already being dealt with by Mr. Shaw's Bill for the abolition of the "gap" between periods of benefit. Certain serious defects in the Old Age Pensions system are indicated, including the difficulty in regard to the means limit. Provision for accident, owing to its limitation to industrial accidents covered by Workmen's Compensation, is perhaps the least adequate of all. There is, finally, the one large uncovered risk of widowed motherhood. And the author proposes to utilise the surplus of the unemployment fund, as it materialises, to provide allowance to widows with young children, and the extension of pensions to cover the period between sixty-five and seventy years of age.

The above criticism and proposals are the result of an admirable, if brief, analysis of the existing schemes individually. They lead up to the problem of the co-ordination of insurance, which "means simply that the various schemes should for once be looked at as a whole." The author does not favour certain more ambitious proposals, such as unification of health and unemployment insurance, with a single contribution and a single insurance card to cover both. "There are serious administrative difficulties in having a single card; as a record of contributions and title to benefit, the stamped card is wanted at once by the approved societies dealing with sickness and disablement and by the employment department dealing with unemployment." What is proposed is a provision for two main insurance sections: one to cover disablement generally, including all forms of sickness and accidents; and the other unemployment, to which will be added the payment of pensions from sixty-five to seventy, and allowances to widows with children, which he proposes to provide out of the surpluses of the unemployment fund.

For such an arrangement, curious as it may seem at first sight, there is much to be said. As the author points out, the employment exchanges, which administer unemployment benefit, have the organisation for making weekly payments, and are responsible for finding employment for the children as they grow up. Moreover, the association of these additional payments with the unemployment insurance scheme will meet the objections of those whose occupations are normally little liable to unemployment and so will facilitate the absorption into the scheme of agriculture and domestic service. A more doubtful point seems to be the tentative proposal to continue the widow's allowances entirely on re-marriage. The children's allowance should clearly

be continued " for the purpose for which it is given—the care of the children," but the payment in respect of the widow herself might fairly be allowed to lapse.

The author, whilst not generally favouring insurance by industry, suggests its utilisation " for adding to the basic State benefit as Trade Unions already do," and this might prove a valuable function. To enable the industries to do this, he is inclined to favour leaving State benefit " at or near " its present figure. This, however, may involve certain risks. For, if the existing provision is not fully adequate, it will make adequate provision dependent on individual industries and thus some might not be sufficiently provided for.

The system of compensation for accident and industrial disease is strongly criticised, as incomplete, as not adjusting the benefits to the need (*i. e.* the number of dependents) except in the case of fatal accidents, and as very costly. Till recently, administration (including profits) by the Insurance Companies had absorbed 50 per cent. or over of the amount of the premiums paid. The Companies have now agreed to voluntary reduction of charges, as an alternative to statutory limitation of premiums. These, however, will still cover nearly 40 per cent. of the amounts received, compared with 8·3 and 13·3 per cent. respectively in the case of unemployment and health insurance. The cost per case, indeed, is higher in the matter of accidents, but the proportion of cases to the number insured is much smaller.

The author has treated the whole subject admirably, making clear both the good and the bad features of the present state of affairs. His constructive proposals appear to be eminently practical and well deserve to be studied in detail by economists, business men and all who are interested in social insurance.

N. B. DEARLE

The Ebb and Flow of Unemployment. By D. H. ROBERTSON. (London: The Daily News, Ltd., 1923. Pp. 23. Price 6*d.*)

THE subject of this study is the " cyclical " or long-period fluctuation in industry, and does not cover that shorter ebb and flow within the year which is usually referred to as " seasonal." Conditions of space and time no doubt necessitated this limitation. The study is the revision of an address to the Liberal Summer School in 1923, which lasted for forty-five minutes. The fact that, with all its brevity, it contains so comprehensive a treatment of the subject shows that the writer possesses a real grip of it; and the treatment itself is clear, interesting and suggestive.

The author has added a short bibliography confined to those books which deal specifically with the problem of the trade cycle as such.

The study deals with the causes of, the responsibility for, and the remedies for, the trade cycle: on each of which the author has something to say. The cause of the cycle is to be found in the fundamental conflict between man as producer and man as consumer, which is the basis of the fluctuations between thrift and enjoyment as well as between the booms and slumps of industry. The author appears to regard influences such as production in anticipation of demand, and the consequent miscalculations and dislocations, as secondary to this fundamental cause. He does not apparently hold the view that cyclical unemployment is to be explained by general under-production or over-saving, but rather that it is the result, in part, of temporary fluctuations between spending and saving. In short, "we must recognise the real conflicts of interest and impulses to which man is subject in his business conduct and seek to restrain him now from over-indulgence and now from starvation of those strands in his economic nature which give to Western civilisation its character of restlessness and of progress."

In short, the problem is to secure a policy of stabilisation, which, whilst preserving the progressive elements in the existing system, shall yet remove or reduce to a minimum the unemployment which accompanies this progress. The author rightly emphasises two points. First, "the interest of the workman (in stability) is the most certain, the most compelling and the most clearly realised by himself; and it is an interest which is not at present allowed to pull its full weight on the side of stabilisation." It might be added that the modern theory of profits as "the leavings of wages" or as "the reward for risks," rests on the assumption that wages are stable and that profits are paid as compensation for "undertaking" responsibility for general risks and instability. Secondly, the author argues that employers generally are not sufficiently alive to the need of guarding against the risks of the trade cycle. "Cycle after cycle, the majority of the so-called captains of industry allow themselves to be caught in the trap of the trade boom:" and the real advantages that would accrue from greater foresight are clearly put forward and illustrated by the experience of important American firms.

Remedies are classified as non-Governmental, semi-Governmental and Governmental. This subdivision is most interesting and suggestive, and reference may perhaps be made to certain specific suggestions. The need of greater efforts by private

enterprise to guard against fluctuations has already been referred to. The author suggests also, as an alternative to restriction of output, the provision of State assistance to firms who make for stock during slack periods. This is done already by some of the best and strongest firms, but may not be feasible for the majority. The policy would no doubt require careful safeguarding, but is certainly hopeful; and one could wish that considerations of space had allowed the author to develop it a little more fully. Undoubtedly "restriction of output in a depression is a poor second-best to making for stock." At the same time, if by restriction of output is meant organised short-time, there is probably room for improvement in the direction of rendering it more regular and systematic.

Mr. Robertson strongly and ably supports a system of insurance by industries, and deals very effectively with certain of the stock arguments against it. It is satisfactory that the trained economist lends no countenance to ignorant assumptions of the inefficiency of the present national system. He does not appear to deal with arguments, such as those put forward by Sir William Beveridge, in regard to the disadvantages of splitting up a single scheme into many separate schemes and to the cost of separate exchange systems, again, possibly, from lack of time. There are also certain more fundamental objections. The system will make the provision of insurance depend on the conditions of particular industries, and thus such provision may be inadequate just where it is most necessary. To put the whole responsibility, too, on particular trades would place a very heavy burden on the more fluctuating industries.

Moreover, their fluctuations are in part caused by the varying needs of the more stable industries, and this seems to justify the present system of sharing the risks between fluctuating and stable alike. These are important considerations, and though not necessarily conclusive, will need to be carefully met in any re-organisation of the insurance system.

N. B. DEARLE

The Economic Position of the Married Woman. The Stansfield Trust Lecture, University of London, 1924. By Mrs. H. A. L. FISHER. (Oxford: University Press. Pp. 30.)

MANY of the proposals ably presented in this brief but comprehensive study are founded on, or at least derive support from, the postulate which is summarily expressed as "equal pay for equal

value of work." In accordance with that principle there is arising "a demand that married women should have some definite right to a definite payment for their work in the home, a definite claim upon some portion of their husband's earnings." The influence of the fundamental postulate is traceable also in the protest against the general feeling that married women should not take paid employment. "What the thinking woman more and more strongly objects to is that she should be considered incapable of judging for herself whether it is or is not right for her to take paid employment.

The *primâ facie* "obvious justice" of equal pay for equal value of work is met by the consideration that "popular feeling is apt to be outraged because the ordinary average man instinctively expects to earn enough to enable him to rear some children, whereas the ordinary average woman does not expect to be responsible for the economic cost of maintaining the race." Justice would be perfectly satisfied, and competition might have fair play, if some system of family endowment were adopted. The economic position of married women would in many ways be improved if the fifty per cent. or so of workers who are bachelors, widowers or married men with no dependent children, were to receive, or at least to retain for their own use, a smaller wage, the difference being employed to provide allowances for children.

Many advocates of family endowment do not go beyond this point. But to a mind like our author's conversant with the causes and effects which form the subject of economics difficulties occur. There is first the question of money. There is required an annual sum of, say, a hundred and fifty millions, and "in our present financial condition, even if we had the most extreme of Socialist governments in power, it seems impracticable that the State should provide what is required." "It is difficult to believe in any immediate prospect of the State endowment of families." Other schemes throw the burden of supporting the children on industry. "There should be, it is said, a tax upon employers who would be able to pay a considerable sum because the standard wage would be based not upon the needs of an average family but upon those of an average couple, and the burden of the wages bill would thus be much diminished." Mrs. Fisher points out some disadvantages in this scheme; for instance, the addition of a considerable sum for collection and distribution. To us there occurs a more fundamental difficulty—the doubt whether the fifty per cent. of workers whose standard wage was being lowered to a sensible extent would acquiesce in this method of reducing the burden of the wages bill.

A further difficulty arises when we consider how the fathers of families would be affected by the system of allowances. "Man is as idle as he dares to be." "Suppose that he is no longer obliged to provide for the maintenance of his children, or at least that the allowances maintain the children of the average man . . . will there not be a considerable danger that the average man will not continue to work hard?" We are confronted with the old antinomy that measures for the improvement of distribution are apt to be attended with a diminution in the product which is to be distributed.

Again, "what effect would a scheme of family endowment have upon the birth rate?" Would it "encourage the parenthood of those who at present tend to have few children. Or would it tend to encourage early marriage and large families among those who racially are not likely to produce a high quality of offspring?"

Altogether "far-reaching schemes such as that for family allowances still need a very great deal of thought, consideration, and indeed research before they can be said to be ripe for action."

Mrs. Fisher has contributed much to the needed thought, in particular by her masterly confutation of a belief to which she attributes much of the prejudice against the work of married women: the "fallacious, unfortunate but immensely widespread belief that there is only a certain amount of work to go round, and that if one person takes a job another loses it." Mrs. Fisher argues well: "Economically it is sheer waste to turn a skilled teacher or designer or writer or singer into an unskilled housekeeper." . . . "If she gives up her work and takes to domestic life she is equally keeping some one else out of a job. Some one less efficient than she does the work which she did before her marriage, she does work which some other woman could do better."

There are doubtless other prejudices destined to succumb to powerful logic of this kind. But perhaps we ought not to wish that the triumph of reason should be easy, the resistance of instinct weak. It is a deep saying of our author with regard to a prejudice which she is combating: "Part of the prejudice . . . is perhaps due to an instinctive desire to preserve the well-being of the race." In seeking to reform institutions relating to family life there is a danger of rooting up wheat along with tares. It is true, as our author says, that "ideas which were once considered revolutionary are now quite respectable and commonplace." But there are also revolutionary ideas which have seemed reasonable to great minds—Milton and Shelley for example—and yet are not

regarded as respectable, and, if carried out, would probably be disastrous to society and the race.

If reason is deceptive let us turn to experiment. "It would be interesting to see the scheme tried in some such self-contained sphere as that of the teaching profession. . . . Even here it would clearly not be easy, in view of the scaling down of the pay of men teachers who were not parents which would certainly be necessary." The masters would no doubt protest that they were not the proverbial *vile corpus*, but a Body required for the education of male youth. Education would suffer if men are deterred from undertaking it by the differential treatment of this occupation. The objection at least suggests that an experiment on a particular industry is not conclusive as to the results of the scheme if adopted in all industries.

Experiment as well as reasoning must be interpreted with caution. F. Y. EDGEWORTH

Democracy and Labour. By F. C. J. HEARNSHAW. (London: Macmillan & Co. 1924. Pp. xvii—274. 8vo. 10*s*. 6*d*.)

THIS is a "sequel" to a "rather long book" published in 1918 which was "not intended" to "please everyone." Yet, the author claims, critics, dissenting from the "opinions" of *Democracy at the Crossways*, "did not attempt to impugn the accuracy of its statement of facts." As one result he "was invited to address large assemblies of working men up and down the country"—an instructive as well as instructing tour from which, we are rejoiced though not surprised to note, he "came back to London with the conviction that Socialism and its offshoots have no real hold on the English working man, and no very strong hold on the working man of Scotland and Wales." In the course of his journey he was asked to arrange for a "cheap popular edition" of the earlier book, and the present volume is the consequence. It is, he writes, "an entirely new and much shorter work, embodying the main conclusions" of the former treatise. That, we may be allowed here to remark, we read with much interest and warm appreciation. But it also incorporates a "large amount of fresh material." It has had the advantage of the "keen discussions" following its delivery as a course of lectures to audiences of "Trade Unionists and others."

It is divided into an Introduction, four Parts and an Epilogue. The parts deal, firstly, with democracy, and, secondly, with labour, treating, shortly but clearly, of the meaning, method and

machinery of the former, and of the position, problems and policy of the latter. In two more parts the "false lights" of both are closely scrutinised under the headings of socialism, syndicalism and anarchism, and the "true way of progress"—political and constitutional, economic and social, and moral and religious—is pointed and followed. In an epilogue the author reaches the sensible, catholic conclusions that the world has need both of the "free individual" and of the "organised community," and that there is no antagonism between the former and the democratic state, while, as the first requires the second, so the latter demands the "large community of humanity." But nevertheless, he affirms in his preface, he is "concerned to defend constitutional method against" that "of direct action," which has no title to be deemed democratic, and he pleads powerfully for "personal freedom, individual enterprise, and private property, as against the communistic proposals of Socialists, Syndicalists, and Anarchists."

As we have hinted, we agree with Professor Hearnshaw's general standpoint, and our differences are limited to some details, such as his final dismissal of tariffs and proportional representation. We consider his book opportune, and should attribute its success largely to its firm definite thought, lucid trenchant language, attractive arrangement and logical consecutiveness. A confirmed proneness to sure, even dogmatic, guidance, an instinctive and inveterate fondness for sharp dichotomy and neat, exact subdivision, an easy command of a rich vocabulary, if it be preponderantly that of aversion and of censure, are qualities which, with all their defects, must be welcome in popular exposition. We can pay no higher compliment than to say that in following with pleasure this alert, persuasive probing dialectic we have been reminded more than once of the mental posture, the reasoning habit and the argumentative weapons of the late Professor Dicey. We could give many examples of what we mean from these lively, albeit serious, pages; but we would draw special attention to the ingenious illuminating application of the recognised conditions of successful democracy to the ambiguous problem raised by the claim of labour to the "control" of industry, and to the damning proof of the recent failure in practice of the latest variety of socialistic speculation—namely, guild socialism. That failure, it may be added, has, significantly enough, just been gloomily admitted by its chief evangelist. Mr. Cole, described here typically, though perhaps not without reason, as "one of the worst exemplars of anti-social and irrational intellectualism," has

indeed, in these last days, disgruntled, it would appear, by the crude experience of an actual "Labour" Government, embraced his own favoured variety in common spleen anent the immediate discomfiture of socialism and socialists of all the warring sects. Our author is, too, felicitously deft in turning more than once to a purpose the contrary of that intended by its user the language of Mr. Tawney. This he applies with apt adroitness, not to that "capitalistic system," boastfully pronounced as sick to death by reason of its "acquisitiveness," but to the socialistic régime which such vain physicians would establish in its stead. He is dexterous, but he is surely right, in urging in reply to some specious empty phrasing that in hard real fact the making of private profit must as a rule involve the rendering of public service, and the suggestion is not without weight that the existing order is deprived of its fair chance by the persistent nurture of an animus against it begot by the illegitimate ascription to it alone of all the ills from which we suffer now and of none of the benefits which we confessedly enjoy. With such egregious bias he justly charges astute advocates like the Webbs.

He himself, however, remarks, correctly, that "in any controversy to deny all merit to one's opponent is a mistake: it is probably a fallacy in fact: it is certainly an error in tactics." We cannot rid ourselves of the misgiving that he himself has not avoided wholly this mistake, in spite of his frank recognition of its frequency. It is true that he promptly proceeds to allow to Socialism the "main merits" of "vivid description" and "passionate appeal," though these are accompanied by the "chief defects" of "false diagnosis and quack remedy." But for all his laudable profession, with much of his just performance, we still feel that such multiplied reiteration of damnatory epithet tends to lose its force with, if it does not weary or disgust, friendly listeners of warm argument; and, while we are far from denying that "plain speaking" on vital questions is an urgent need, it is, we judge, a disputable surrender to seducing alliteration to describe Christian Socialism as the "vain illusion of a small band of bamboozled bishops, perverted priests, and confounded curates." To say again that the members of Trade Unions and Co-operative Societies are "trained to practices which embody the very ethics of Hades" is not, it may be, over-coloured as an account of the "class war," but, as a substitute for the place which the Professor's "plain speech" might be expected to have small scruple in mentioning, the reference involves dubious theology, if it be not a mistake. He falls indeed into a natural error in writing of Mr. Montgomery,

to whose informing book he complimentarily alludes, as an American and not, as what he is, a Swede; but he should, we think, have been more scrupulously careful in his text to adhere to the correct practice of his list of books and index in recognising the joint authorship of Mr. and Mrs. Webb. He rightly stigmatises as biased pamphleteering rather than trustworthy narrative the account of the Osborne judgment in the new edition of their *History of Trade Unionism*. He has, we judge, no liking for magisterial delivery by them of a whole new constitution for this country which, as we have recently learnt, led Lord Morley to bestow the epithet of "clever," carrying, as we are also told expressly, no commendation from him but the reverse. Finally, we may be hypercritical, but we must confess that we are not attracted by the word "acerbate," which, the Concise Oxford Dictionary states, is "sometimes used for exacerbate," and we would venture to suggest "embitter."

But we mention this small blemish because, rightly or wrongly, it seems to us characteristic, if due, not to affectation, but to straining for effect. We would repeat that our general attitude is that of grateful praise and not of petty fault-finding. We are glad indeed that so useful and so opportune, so skilful and informed, a contribution as the book before us should be made to the wise, forceful discussion of our present problems; and we welcome, as we admire, the bold, sane declaration that the "hope of the human race rests not in Socialist Utopias, or Syndicalist Bedlams, or Anarchist Pandemonia, but in the preservation of Western civilisation and in the development of such politics as that of the British Empire."

L. L. PRICE

The Standard of Living: Elements of Consumption. By NEWEL HOWLAND COMISH, M.S. (New York: The Macmillan Co. 1923. Pp. xiv + 340.)

THE reader who follows Professor Comish through this little volume will gain some useful advice on questions of daily life as well as information on the habits, customs, resources and legislation of the United States. Some of the advice is not new, as *e. g.* that good habits of eating, of drinking, of sleeping and of thinking build up the body as the sunshine and rain build up plants; that a nation weakens itself by wasteful consumption; that the lure of advertisements should be resisted, and that everyone should save a portion of his income and invest it in gilt-edged securities.

The reader is taken exhaustively through alternative methods of satisfying his daily needs: the purchase of goods direct from the farmer, from Department Stores, Chain Stores and Mail Order houses. The benefits of co-operative buying are given due weight, but against these advantages must be set the fact that Co-operative Stores in the United States have generally failed.

The book has grown out of a course of lectures given annually at the Oregon Agricultural College, and is elementary in scope and treatment. Questions and exercises for students are set at the end of each chapter. The illustrations are attractive and some of the statistics novel and interesting. The result of an investigation into the motives which prompted 200 junior women students to buy a new dress are compared with results similarly obtained from men. If the evidence of introspection is to be trusted, the motives differ but little in the two sexes. In a detailed discussion of workmen's budgets, official statistics are quoted to show that the majority of working-men's families of average size live in dwellings which furnish approximately one room per person. The standard workman's budget provides, *inter alia*, for a life insurance premium sufficient to pay a $5000 policy for the head of the family—this was considered an absolute minimum.

Nevertheless Professor Comish, like many of his compatriots, is concerned for the resources of the United States, and anxious lest the high standard now enjoyed by the working classes may prove impossible to maintain. He advocates a postponement of immigration *sine die*, and thinks it would be decidedly advisable for the United States to limit its population.

H. REYNARD

The Trust Problem in the United States. By ELIOT JONES, Ph.D. (New York: The Macmillan Co. 1922. Pp. xx + 598.)

STUDENTS of the trust movement in America are so familiar with, and so attached to, their " Jenks " that they will find it at first somewhat difficult to welcome a new-comer to the field. It must at once be said, however, that the Professor of Economics in Stanford University has written a very good book, in which, while necessarily having to traverse a good deal of the ground covered by his predecessor, he maintains a sufficient independence of attitude and outlook to make his work a useful complement to the volume which is on every one's shelves. It is clearly and concisely written, and while, on the whole, the author is a critic rather than an approver of " big business " and its methods, his

treatment of his subject is eminently fair. It is apparent, on every page, that his object has been, first, to ascertain the facts, and, secondly, to set them forth without bias.

Professor Jones does not attempt to cover the whole territory of industrial combination. He excludes pools, trade associations, and other organisations possessing only a temporary control over industry, and also "monopolies (whether railroad or other) in the so-called public service industries." In his own words: "A trust (industrial monopoly) may be said to exist when a person, corporation, or combination owns or controls enough of the plants producing a certain article to be able for all practical purposes to fix its price. Control over the price is the fundamental test of monopoly; it is its essential and characteristic feature. Just what percentage of the business must be handled by a trust in order that it may be able to determine the price of a given article cannot be stated with precision, yet it seems fairly certain that as a general rule the production of from 70 to 80 per cent. of the national supply, and possibly even less, is quite ample for price control" (p. 1). He then proceeds in the first chapter to define the various kinds of industrial organisation, and devotes three chapters to the history of the early pools and selling agencies, the trustee device, the holding company, and the consolidation or merger. The next six chapters contain an examination of six typical monopolies—the Standard Oil Company, the American Sugar Refining Company, the American Tobacco Company, the United Shoe Machinery Company, the United States Steel Corporation, and the International Harvester Company. The history of each of these organisations, the reasons for its formation, its methods, its effects on prices and profits, and its relative success or failure are all discussed.

Next comes a chapter dealing with the effects of trusts on prices, treated partly historically and partly theoretically. The general conclusion is that: "The foregoing considerations make it evident that the price policy of the trusts has been less grasping than might have been expected of an agency formed largely for the express purpose of suppressing competition. They also demonstrate that though there are certain forces at work to safeguard the public interest, these forces are not adequate of themselves, since they do not prevent the trusts from charging prices higher than the public would pay under competitive conditions, assuming that industry is as economically conducted under the latter state as under the first" (pp. 281–282). The twelfth chapter discusses the part played by promoters in the formation

of trusts, with the result that "the conclusion would appear to be abundantly justified that the prospect of securing promotion profits has contributed markedly toward the formation of numerous trusts. It played a lesser part, however, than the hope of achieving monopoly prices" (p. 299).

The author then passes on to the relations between the trusts and the public, a long history of the efforts of courts and legislatures to curb the powers of the great combinations and restore the assumed advantages of competition. Successive chapters deal with the common law relating to combinations and trusts, trust legislation to 1914, the trust legislation of 1914, the Webb-Pomerene Act (legalising combinations for export trade), judicial interpretation of the Sherman Act, and trust dissolution proceedings. The last two of these chapters are of the highest value. We note the gradual modification of the Sherman Act, which brought all contracts in restraint of trade within the purview of the courts, by the evolution of the doctrine of the "rule of reason," so that only "unreasonable" restraint became an offence. Trade union action was also brought within the Sherman Act, and although the Clayton Act of 1914 expressly excluded it from anti-trust legislation, we must point out that subsequent legal proceedings have cast some doubt on the efficacy of the later Act. The Clayton Act also struck at price-discrimination (but under provisos which seriously limit its application), at sales to which conditions are attached, at holding companies, and at interlocking directorates. The Trade Commission Act, also passed in 1914, penalised "any unfair method of competition in commerce." Professor Eliot Jones appears to have written in 1919–20, and perhaps that explains why he does not deal at any length with the work of the Federal Trade Commission in the suppression of these unfair methods. Examination of the volumes of reports of proceedings that have been issued since 1919 shows that the vast majority of the cases are for offences that are punishable in British courts without any fuss; they include chiefly infringement of trade-marks, bribery of competitor's employees, passing off worthless goods as valuable, untrue advertisements, and the like, with a few cases of boycotting which our courts might or might not restrain according to circumstances.

Those who have ambitions to legislate against trusts should study closely the accounts of trust dissolution proceedings in Chapter XVIII, and observe how much more dissolution is an economic than a legal problem. "To unscramble eggs" is notoriously difficult, and the dissolution of the oil and tobacco

trusts was really farcical and that of the harvester trust not much better, but in the powder, cash register, harvester, glucose, meat, lamp, and can cases the courts retained jurisdiction after they had issued their judgments, so that they might be able to modify the decrees if they proved to be inadequate. Summing up, our author says in the concluding chapter of his book: "What has been the result of all this agitation and legislation and prosecution? It would appear that much has been accomplished toward placing business on a higher moral plane. Fair methods of competition in commerce have been promoted, and the policy of the oppression of competitors has been moderated in response to public opinion and to fear of the law. Moreover, many concerns have reorganised their affairs to meet the wishes of the prosecuting branch of the Government. Furthermore, still others have been forced by court decrees to dissolve into a number of potentially competitive units, and have been enjoined against the employment of sundry anti-social tactics. Yet the fact remains that the onslaught on trusts has met with only a partial success. Trusts have been dissolved, to be sure, yet in most cases haltingly and ineffectively; and competition continues to be restrained despite the prohibitions of law and the pressure of public opinion" (pp. 562–563).

For the sake of continuity in this notice two chapters have been passed over and can now receive only brief attention, though they deserve close study. Chapter XIX deals with the anticipated economies to be realised from the trust form of organisation, and concludes that, while more evidence is necessary, "it must be admitted that the showing of the trusts has not realised the high hopes that were entertained for them upon their formation about a generation ago" (p. 541). The following chapter deals with the regulation of price, and is well calculated to make the reader hesitate more than once before becoming a believer in the efficacy of this device.

A very full table of contents, a sufficient index, and a bibliography of principal books on the subject add to the usefulness of this book.

HENRY W. MACROSTY

Labour in Indian Industries. By G. M. BROUGHTON, O.B.E., M.A., D.S.(Econ.). (London, Bombay, Calcutta, Madras: Humphrey Milford, Oxford University Press. 1924. Pp. vii + 214. Price 9*s.* net.)

Welfare. Vol. II. January–June. (Published monthly; 91 Upper Circular Road, Calcutta. 1924.)

DR. BROUGHTON'S study of labour conditions in factory and mining industries cannot but be painful reading to anyone conscious of responsibility for the welfare of India. Her exceptional opportunities of inspecting factories in England during the war and in India after the war have enabled her to select from the mass of official reports and standard works the essential facts of Indian conditions; and these facts, presented largely in precise statistical form, need no emphasis to impress them indelibly on the mind.

The first half of the volume is mainly descriptive and statistical. After outlining the salient features of village life and employment, the experiences of the labourer leaving his village and starting factory work in the town are portrayed. "He is but a unit among many and has no idea who his master is. All he knows is that he is under the immediate supervision of a foreman who has the power to dismiss him. In a great many factories he receives no wages until he has worked a month or six weeks, and his wages are always in arrears. . . . He has come from his village because he was short of money, and on arrival at the factory finds that he has to begin by borrowing at an exorbitant rate." "If ill or absent from work, instead of meeting with kindly solicitude about his welfare, he finds that he has rendered himself liable to a fine." Of life outside the factory something may be inferred from the returns of infantile mortality in 1923. In England the deaths of infants under one year were 80 per 1000, in Bombay city they were 556, in Calcutta 386, in Madras city 282. In 1921, in Bombay city 66 per cent. of the population were living in one-room tenements with an average number of four persons in each. The Municipal Commissioner reported that in 1920 more than 75 per cent. of the total births occurred in families limited to the occupation of a single room or a portion of it. The mortality rate among infants born in these conditions was over 88 per cent.

Agriculture is the main occupation of the people of India. In Bengal 94 per cent. in 1911 lived in villages and carried on

rural occupations. In all India the population of towns with over 100,000 inhabitants formed only 2·2 per cent. of the total.

In the latter half of her book, dealing with conditions of employment and ameliorative measures, Dr. Broughton shows that there is a great awakening to a sense of the need for Government action. The legislation carried through in ratification of the Conventions and Recommendations passed at the International Labour Conference under the League of Nations in 1919 would be encouraging but for one unfortunate drawback—the almost total absence of any guarantee that means will be provided for administering the Acts effectively.

Dr. Broughton concludes a section on "Action by Social Agencies" with the remark that "the chief needs of the industrial classes are what all these Societies in various ways are trying to provide: education, medical aid and co-operative credit and stores." She shows that the determination of the immigrant worker in factories, mines or tea-gardens to retain his footing in his village is largely responsible for the terrible housing conditions in the cities. The great importance of this contact with city populations on the villagers themselves, whether stationary or migratory, in its effect on their views of caste and authority, is clearly shown. Perhaps some student of English history will do a service to Indian leaders by presenting a study of the growth of our small villages into small urban districts.

The new monthly *Welfare*, now in its second year, aims at interpreting the practical side of nationalism· and at creating "a healthier, wealthier, happier and stronger India." In a paper on "Rural Health Service" (Jan. 1924), read before the Calcutta Social Service Conference, Dr. D. N. Maitra advocates the training of a special class of rural medical helpers or health workers. He points out that in Great Britain there is one Health Officer to 10,000 persons, and in Bengal one to a million. His proposal is to create a grade "which will be most needed for the vast population—95 per cent.—that live in rural areas and form the backbone of the nation, there being but one town to 1000 villages." "This scheme would give a scientific and more up-to-date training to those people who would otherwise flourish as quacks. For instance, in one district (Malda) it has been estimated that 800 quacks (men and women) flourish in a population of only 20,000 and all more or less making a living." In a second paper (Feb. 1924) he advocates "travelling social welfare camps," with "a band of workers consisting of an enthusiastic doctor, a qualified and educated midwife and nurse,

a group of singers, some of whom would make good lecturers and demonstrators, and a few extra hands if necessary, with the necessary paraphernalia." In an article entitled *The Economics of Charka* (May 1924) M. N. Roy subjects to severe criticism the economic theories of Dr. P. C. Ray, one of the promoters of the campaign for the revival of the hand-spinning and weaving industry in every village. "The theory that under any circumstances home-spun and hand-woven cloth can be produced for the entire community without running into competition is proved economically false." "The overcrowding of land, which is the basic cause of India's economic bankruptcy, should be relieved by the growth of industries which will provide employment to the millions who are to-day eking out a miserable existence upon agricultural wages."

CLARA E. COLLET

Bankers and Credit. By HARTLEY WITHERS. (London: Eveleigh Nash. 1924.)

A WELCOME is due to this, the latest addition to the well-known series of works by Mr. Hartley Withers, on the theory and practice of money and all that pertains thereto. The author's object is frankly popular—not so much to proclaim a new gospel as to advocate a return to the old dispensation, to recall "what happened to our monetary system during and after the war," to discuss some of the criticisms levelled at and reforms proposed for it, and finally to justify the faith that is in him, that the first thing to do is to get back as soon as possible to the gold standard "on the pre-war basis."

The book falls into two parts. The first describes the pre-war monetary *régime;* the nature and consequences of the disturbance flung into its placid flow by the war; the Holden scheme and Cunliffe Report; the post-war inflationary boom, which took place notwithstanding the advice of the bankers; and the collapse and its causes. The second part examines critically, but not very deeply—the scope of the work does not admit of this—several of the most advertised, if less authoritative, suggestions for reform, and concludes rather abruptly that index numbers *et hoc genus omne* are best left to the "learned gentlemen who understand these matters," in the pious hope that they may some day succeed in elaborating a scheme of reform that will be generally approved by these same seigniors and will be free from the trammels and dangers of official control, and that in the meantime they would do well to subscribe to the creed indicated above.

Put briefly, Mr. Withers' point of view is based on that of the Cunliffe Report, to which he gives his entire approval. He admits defects in the old *régime*, but submits that it is better to bear the ills we have than fly to others that we know not of. Not that he would rule out all possibility of improvement in the future, but for the present the old way is safest, because we know it. And after all it worked. In this conclusion most people will agree with him.

While we may thus give a general assent to the author's conclusion, we may still differ from him on particular points. He will have nothing to do with a system which admits of official control, though he does not always discriminate between the trained Civil servant and the politician. They made mistakes, no doubt; but mistakes made in the stress and hurry of war would not be equally likely to occur in the calmer paths of peace.

He is also opposed to other methods of control, even by the Bank of England, because "Parliament would certainly claim the ultimate right of control." But would they get control now any more than previous to 1914?

In rebutting proposals to regulate our principal currency, credit, by the bank rate, Mr. Withers relies a good deal on the failure of a rise in the rate in 1919 and again in 1920 to restrict the volume of credit, and, on the other hand, on the failure of a fall in the price of money to maintain this volume in 1922. Before the war change in the bank rate was used effectively to control the amount of money in the country, and through that the level of prices and the rate of exchange, though even then the Bank had to supplement this method by calling money in from the market. This plan, whether in its simple or its compound form, would have failed had the market been able, in its straitened circumstances, to replenish its stock of gold at less than the official rate, by resorting to Dr. Trismegistos, the alchemist of Golden Lane. This is in effect what is happening now. The fates which preside over the destinies of the currency note play the part of benevolent alchemist, but subject to the control of a higher power in the possession of anyone who can wave in their faces a maturing Treasury bill. Exorcise this power and control by bank rate becomes possible, though its operation will be strengthened if simultaneously the Bank can alter the amount of money at the disposal of the market.

And as to credit, this is an elastic term. We want to know much more about the names in which the expanded credit of 1919–20–21 was recorded, before we can reason about it with

any certainty. Much of it was undoubtedly in the hands of consumers, for retail prices went on rising for months after the peak had been passed for wholesale. These consumers were in great part returning troops who were spending their war gratuities and back pay. Another portion belonged to Germans and other foreigners who were increasing their balances in this country at this time.

Mr. Withers approves the finding of the Cunliffe Committee, that notes should be issued against gold in the ratio one to one, instead of three to one, as recommended by Sir Edward Holden, because it would be necessary to withdraw three million pounds in notes before one million could be exported in gold. He thinks, with the bankers, that the City would be more apprehensive of this possibility. The arrangement would, however, cut both ways. The effect of exporting a third of a million of gold on the amount of money in circulation, on prices and on the exchange, would be the same as that of one million on the one to one ratio. What should be compared is the effect of exporting a million in the one case with that of three millions in the other. Further, is not the fear of panic excessive? Was it not one of the great lessons of the war that the City's nerves were able to withstand shocks in a way no one would have believed possible eleven years ago; that even natives of countries in a backward state of economic development were prepared to replace barbaric by more developed currency systems, if only they were educated up to them? In brief, if their confidence was won. The unforgivable sin of which inflating Governments were guilty was that they abused this confidence.

J. I. CRAIG

Russian Debts and Russian Reconstruction. By LEO PASVOLSKY and H. G. MOULTON, with the aid of the Council and Staff of the Institute of Economics. (London: McGraw-Hill Publishing Co. 1924. Pp. xiii + 247.)

THIS little volume comes as a successor to Messrs. Moulton and McGuire's *Germany's Capacity to Pay.* It consists chiefly of a careful analysis of Russia's pre-war trade balance and foreign debt liabilities, followed by a dispassionate attempt at estimating the export requirements for meeting the interest on pre-war and war indebtedness and the possibility of Russia being able eventually to meet these requirements on the basis of a modest series of reconstruction loans amounting to £300,000,000 sterling.

The bulk of Russia's State debt was from the beginning incurred for political reasons and was from the beginning foreign-held. (Obviously any internal debt has been swamped out of calculation by inflation.) Russian bureaucrats, pre-war, seem to have been obsessed by the problem of maintaining an adequate export surplus to cover interest requirements, and raised loans for railway and similar developmental purposes mainly as a means of making larger exports possible. The authors of this book seem to have allowed themselves to become somewhat infected by the bureaucrat's way of looking at things. "The deficiency of the export surplus explains why it was necessary for Russia to borrow continuously in foreign markets" (p. 32). One is reminded of the policy of a President of the Reichsbank who found it necessary to print notes continuously in order to catch up with a rising level of prices and a consequent currency shortage. Naturally, the export surplus never *was* enough, especially in the years when the Government was borrowing a lot to fill the gap.

Though our authors' discussion "is intended to be neither a prophecy nor a program" (p. 3), they analyse a suggested programme in seeking to decide what measure of export expansion is possible to enable interest to be paid on the old loans together with that on the proposed reconstruction loan of 3,000 millions of gold roubles. This again seems to have in it a touch of the Russian bureaucrat's pre-war idea of the situation—though, in view of the probable attitude of business readers and political readers, the discussion of such a programme is perhaps inevitable. Probably most English readers—though not perhaps French investors—would be prepared, after some study of the statistics so lucidly presented, to class Russia's pre-war as well as her war-time borrowings among our hopelessly bad debts; and would be content with the prospect of investments in this dark half-continent that could be depended on to yield merely average returns. One would have to take a very high view of the capitalistic morality of Russia, even under "a responsible Government accepting the principles which ordinarily govern economic relations among civilised nations" (p. 169), to hope not merely to get the 8 per cent. suggested as interest on the reconstruction loans, but also to evoke some £30,000,000 on pre-war and some £35,000,000 on war debts. Possibly the authors, if they were propounding a programme of their own, would themselves advocate the use of the sponge for existing indebtedness. "If Russia's war and pre-war debts had been

obliterated along with the economic system which the pre-war borrowings helped to create, there would be some tangible basis for reconstruction credits; but taking conditions as they stand, there is no income foundation on which to build" (p. 150).

Unless and until a capitalistically minded Government appears on the scene, it looks as if Russia is doomed to remain a second China, with a less fertile soil and a less intelligent and thrifty agricultural population—a population always expanding up to the limits allowed by temporary economic conditions, and unlikely ever to produce more than satisfies from day to day an Oriental standard of life that makes no adequate provision even against the inevitable evil of recurrent famine. To hope to obtain from such a population interest payments on wasted borrowings of the past seems to call for an uncommonly robust optimism. The joint authors, however, are not definitely committed to any such confession of faith.

L. ALSTON

Co-operative Movement in Russia. By E. T. BLANC. (New York: Macmillan Company. 1924. Pp. 324.)

THE author, who is evidently a co-operative enthusiast, gives a very interesting and informing account of the efforts which have been made to develop co-operation in Russia.

Beginning with a brief historical survey of the rise of Russian industries and early co-operative experiments, the book goes on to describe in considerable detail the varying fortunes of different types of co-operative organisations in the Russian Empire from the beginning of the twentieth century. The treatment meted out to the movement by the different Governments is explained, and this clearly reflects the mind of those in power at the time towards political and economic issues generally. Under the Czar it appears that Co-operation received encouragement in some directions and was restrained in others. Officialdom evidently did not like the idea of the movement becoming too powerful, and it therefore discouraged activities in the direction of All-Russian centralised co-operative organisations. Whenever the movement looked like getting a bit out of hand along these lines, steps were taken by decree or administrative action to impose some check. Such regulations were enacted as that "The co-operators could only discuss questions as were stated in the agenda and approved of by the police," or again, "The Mayor of the City as well as the Governor of the province had the right to order

liquidation of the Society." In such a relatively poor country as Russia credit Societies were naturally an important feature, but the Government "did not allow any union of the various credit Societies."

In 1908 the first All-Russian Co-operative Congress was convened at Moscow, but "The Government, hostile from the very first, finally interfered and dissolved the convention." The movement, however, could not be held back, and in 1913 a Congress was permitted subject to a Government official acting as chairman.

After the Revolution and under the Kerensky régime, Co-operation evidently had friends in power, for the Government gave numerous concessions to co-operators and passed legislation favouring them, with the result that the movement made great progress, and Consumers' Societies, Producers' Societies and Credit Organisations grew rapidly. The friendly Government, however, did not last long and with the advent of the Bolsheviks to power a change took place. True, at first Co-operation was not molested, but after a time restriction and suppression became the order of the day. Co-operation was a product of capitalism and had to be restrained. "At the zenith of the new power," the author tells us, "the co-operators came into conflict with the Soviet régime; they were forced to give up their independence and become a vital but subservient part of the Bolshevist machinery of a Communistic State."

These efforts to subordinate co-operative to communistic ideals were pursued for some time, but when it became manifest that communism was economically a failure and Lenin decided to seek to retrace his steps under what is called the New Economic Policy Co-operation again rose to favour. On April 19, 1921, for example, a decree was issued which "once again permitted the formation of co-operative organisations for agriculture."

The last chapters of this book are devoted to describing the extensions which have taken place under the changed conditions.

Space will not enable detail to be given showing the strides which have been made, but some idea may be formed from the fact that the movement in its various aspects now represents one hundred million of the population.

The book is evidently written with a co-operative bias, but it contains material of great interest to students of economics, and in view of the world-wide concern on Russian affairs, is particularly welcome just now.

HENRY VIVIAN

A History of Trade Unionism in the United States. By SELIG PERLMAN, Ph.D. (New York: The Macmillan Co. 1922. Pp. viii + 313.)

DR. PERLMAN was one of the associates of John R. Commons in his *History of Labour in the United States*, issued by the same publishers in 1918 in two volumes, and reviewed in the JOURNAL for September 1922. Part I of the present work is a summary of the earlier history, and the task of compression has been skilfully done and without bias. Part II carries on the narrative from 1897 to 1922, and deals with the new difficulties arising under the *régime* of partial recognition, with the growth of radical unionism, and with the war-time organisation. The return of prosperity in 1898 was accompanied by an intensified activity of trade unions, the capture of new fields of industry, and the spread of trade agreements. The great victory of the bituminous miners in 1897, followed by their steadfast adherence to their agreements, was a real revolution by equalising working conditions throughout the coalfields. "The anthracite coal strike of 1902 was doubtless the most important single event in the history of American trade unionism until that time and has since scarcely been surpassed." It ended by the intervention of President Roosevelt, and, though the union did not win recognition, the miners secured a ten per cent. rise in wages, the eight and nine hours day, and the institution of union check-weighmen. Another strike of doubtful result came in 1912, but in 1916 the union won the eight-hours day and full recognition. The railway men comprised the aristocratic "brotherhoods" of the engineers, conductors, firemen, and trainmen, and sundry other unions of railway workmen, only the latter belonging to the American Federation of Labour. The period up to the outbreak of the European war was characterised by an increasing revolt of the brotherhoods against arbitration and a drawing nearer to the other unions. The machinery and metal trades achieved in 1900 some measure of success for the establishment of conciliation machinery, in which the principle of co-partnership between capital and labour was recognised, but after a few years it broke down. Employers in turn reacted to the pressure of the trade unions by organising themselves industrially and politically, and by initiating the "open-shop movement," which met with only a qualified success. In Congress an eight-hours Bill was at last passed in 1912, but the Federation of Labour had little fortune with its anti-injunction Bills. Its leaders came back into politics, and were partly responsible for the election of the Democratic Congress of 1911–13. The International Workers of the World

took in hand the abolition of "wage-slavery" and the organisation of the unskilled workers, and fought bitterly the craft organisation of the Federation. Its success was brief, but from it developed the principle of organisation by industries, which had its greatest successes in the "new unionism" of the garment industries.

The war period saw two important gains, the exclusion of labour disputes from the anti-trust laws in 1914, and the passing of an eight-hours-day law for the railways in 1916. When the United States went into the war, labour came into its own: it achieved full recognition from the Government, was admitted to co-partnership, and gained the state-regulation of the relations between capital and labour. After the war the employers, wherever possible, shook themselves free from the trammels imposed on them in a time of emergency, fought for the open shop, and set up shop committees in opposition to the unions. The unions were eager for the fight, but the failure of the steel strike in 1919, the partial success of the bituminous coal-miners strike in the same year, and the failure of the anthracite strike in 1920, showed that the situation was altered. The railwaymen gained a partial victory, but the slump of 1921 was fatal to the unions. "Public opinion" linked up the labour movement with "radicalism," the American equivalent for "Bolshevism" as a term of abuse, and the reaction in the courts made the legal position of trade unions uncertain and unsatisfactory.

Part III contains forty pages of "conclusions and inferences." It hardly admits of summary, but broadly it traces two movements —towards equal bargaining power and protection of labour, and towards various idealistic views of the future of society (Greenbackism, productive co-operation, Socialism). The latter movement is essentially political, but the individualist philosophy of the American Federal and State Constitutions makes the judges "very conservative in allowing the legislature to invade the province of economic freedom." This is the real reason why there is no American Labour party, and why trade unionism in the United States is a "conservative social force" working against the autocracy of employers.

Altogether this is an admirable book and quite indispensable.

HENRY W. MACROSTY

The Shop Committee in the United States. By CARROLL E. FRENCH, Ph.D. Johns Hopkins University Studies, Series XLI, No. 2. (Johns Hopkins Press. 1923. Pp. vii + 109. Price $1·25.)

"THE Shop Committee may be defined as a form of organisation for collective dealing by means of joint committees, composed of an equal number of representatives of both employees and employer, chosen from within a single plant or corporation." Dating back to about 1903, a considerable impetus was given during the war to this form of organisation owing to the need felt by the United States Government for some intermediary between management and men for the ventilation of complaints and the settlement of disputes. Various forms of committee were set up according to the nature of the business and its simplicity or complexity, and these are fully explained and discussed. Their scope varied : the Harvester Works Councils will hear "any suggestion, request or complaint, pertaining to wages, hours, working conditions, recreation, education, or any other matter of mutual interest," but in some cases shop discipline, hiring, promotion, and discharge are excluded.

During the war the trade unions were generally in favour of shop committees, for they usually operated in unorganised territory. After the war large numbers of employers, "especially among those actively allied with the movement for the 'open shop,'" adopted the shop committee as a substitute for recognition of the trade unions, and the unions were "forced into an attitude of open antagonism and uncompromising hostility." The opposition between the "collective dealing" of the individual shop and the "collective bargaining" of an entire industry is fundamental, for the former means the abandonment of the "common rule." The unions also regard the committees as undemocratic and completely dependent on the employers. Dr. French, while recognising the strength of the union criticisms, urges that the two movements could be co-ordinated, and that the shop committee could be utilised for "applying and interpreting the terms of the labour agreement made with the union," for relieving the union from the necessity of dealing with numerous small details, and for keeping the union "in close touch with the intimate details of industry."

HENRY W. MACROSTY

Die Landflucht. Ihr Wesen und ihre Bekämpfung. By MICHAEL HAINISCH. (Jena: G. Fischer, 1924. Pp. 370, large octavo.)

THE President of the Austrian Republic, a learned economist, thoroughly trained in theory as well as in practical economics, has for many years made agricultural problems, and among these especially the rural exodus, the particular subject of his studies.

As a consequence of industrial development there emerged everywhere a tendency in the agricultural classes to leave their calling, and during the last century the rural exodus became an outstanding mass-problem both in Europe and the United States of America. Its importance was temporarily lessened by the Great War, owing to the enhanced importance of farming in the belligerent States of Europe. But as a consequence of the war agricultural production has fallen off to an extraordinary extent in Central and Eastern Europe; along with this the impoverishment of these countries is a great obstacle in the way of importing foodstuffs and raw materials from overseas; consequently it is of the utmost importance not only for these countries, but also for the general restoration of pre-war trade and transport, that they should return to their normal agricultural productivity. Austria, in particular, reduced to a barren and mountainous pygmy State, depends for its existence on getting her poor and sparsely populated soil to yield as much as possible, on her industrial achievements and on the development of her international trade and banking which, for the present, are greatly hampered by the protectionist and even prohibitive policies of the New States in the east of Europe. In general Central Europe *needs* agriculturists.

Now, the rural exodus is brought about by the fact that the wages of labourers are much lower than those of industrial workers and miners. If, therefore, we want to stem the rural exodus, we must, says President Hainisch, raise the wages of labourers to the standard of the industrial workers. High wages, it is true, raise also the prices of agricultural produce, but this, in return, is calculated to prevent the rural exodus of farmers. The problem, then, is to fix a relation between the wages of agricultural labourers, the prices of agricultural produce, and the prices of holdings.

Up till now, throughout Europe, farms were bought at a higher price than was warranted by their net proceeds. This caused their owners to become heavily encumbered with debts. In order to obviate this, President Hainisch would like to

see all farms and estates of more than twelve acres rendered indivisible, save by special permission of the authorities; this prohibition would not extend to pure forest estates and to those that grow mostly wine, fruit or vegetables. The estates would then be officially assessed and their price fixed, and buyers who were willing to pay more than this normal price would have to pay the surplus out of their own resources. Likewise, in cases of succession, the competent authorities would have to be satisfied with the normal price. Mortgages, resulting from excessive prices having been paid, would thus be prevented.

As to raising the wages of agricultural labourers, President Hainisch points to the measures taken in England in 1917. Average workers got standardised wages, qualified hands got more, unskilled got less. This scheme was dropped in 1921, but local committees of arbitration presided by independent chairmen came into operation. As it is chiefly the younger vigorous men and women who are prone to turn their backs on the land, Hainisch recommends that they should get better wages than the older and less efficient. People who are employed in summer only should get additional wages as insurance premium. All these provisions should be arrived at not by collective bargaining, but by special Wages Boards, who would also consider the consumer's interests.

Now, if only wages were raised and not also the prices of agricultural produce, the consequence would be a less intensive production on the part of the farmers. To prevent this Hainisch suggests Monopolising the Corn and Cattle Trade. In countries which produce less corn than is consumed a monopoly could be introduced with the effect, that through the importation of cheap foreign bread-stuffs the dearer home-produce could be cheapened for the consumer. As a buyer on a large scale the Administration of the Monopoly would certainly get corn cheaper than private dealers do. The Monopoly would also command the mill business and thus be in a position to sell the flour cheaper, at the same time giving occupation to the mills and supplying cattle-growers with bran. The farmers could get the same prices for their corn as if agricultural produce was protected by duties, and the consumers would be less burdened by a monopoly than by duties, because they would purchase the quota of corn to be imported for consumption at the lower prices prevailing on the world's market. Further, there would disappear one of the main disadvantages of protection, which consists in the actual landowners alone enjoying its advantages. For the artificial

raising of proceeds by means of duties brings about an advance in the price of land, so that any new buyer of an estate would be no better off than the owner was previous to the introduction of protective duties. In reality protection would be a present for those who, at the time of duties being established, happened to be the owners of estates; in order to improve the position of their successors, higher and higher duties would have to be the order of the day.

President Hainisch recommends also a monopoly for the Cattle Trade and Butcher's Business. Such a scheme was in operation in Styria during the war, and it did business with very little expense. When, after the war, it was dropped, the private cattle trade revived; now a host of middlemen make a living out of it and the farmers waste much time in disposing of their cattle. While the monopoly lasted, the butchering and distribution amounted to 6 per cent.; to-day the butchers alone make a profit of 18 per cent., and the dealers also have their share, so that almost one-third of the price of cattle is added, which, of course, must be paid by the consumers. That is why President Hainisch recommends going back to monopoly and would like to see it extended to the whole Commonwealth. Then the recurrent fluctuations of prices, which, at present, are considerable, would be avoided. Farmers could give all their attention to the urgent task of raising production, and adequate prices would certainly stimulate production.

EUGÈNE SCHWIEDLAND

English Industries of the Middle Ages. By L. F. SALZMANN. (Oxford: The Clarendon Press. 1923. Pp. xx + 360.)

THIS is a new edition, through a new publisher, of a book first issued ten years earlier. The first edition was good and this is much better. Without any parade, and in as brief a space as possible, Mr. Salzmann sets out to explain how the chief mediæval industries worked and what their technique was. Sometimes—as in the case of tin—he has a first-rate monograph to follow; generally he has had to do his own spade-work, and that has been largely among documents. For instance, he extracts "our first-dated reference to an actual coal working" from an Assize Roll of 1243—how Ralf, son of Roger Olger, was drowned *in fossato carbonum maris*, a sea-coal pit. Or, from the Customs Accounts, he gives us the Newcastle coal-exports of 1377–8, and where the coal went to—Dunkirk, Sluys,

Flushing, Bremerhaven, and in ships of "Lumbardye." From the Chancery Proceedings comes a note of a London goldsmith capitalist, early in the Tudor Age, making "engines and instruments" to drain a Cornish mine. From the Patent appointing John Pecok ulnager in 1316 can be illustrated the wide range and local specialisation of the cloth manufacture in the thirteenth century. And from the Liberate Rolls we learn how Henry III ordered "100 slices of best whale" for Court consumption.

The industries dealt with are Mining, in all its sorts, Quarrying, Building, Metal-working, Pottery, Tiles, Bricks and Glass, Clothmaking, Leather-working, Fishing and Brewing. A final chapter deals concisely, but excellently, with the control of industry by gild, municipality, or the State. There are points here and elsewhere which a reviewer might argue with Mr. Salzmann; but he is not disposed to do so out of gratitude for the mass of interesting facts about the actual doing of things. Economic history is subject to the standing risk of becoming a discussion of the rise and control of social machinery for the production and control not of beer or boots, but of *x*. (Parallel risks have been alleged to exist beside the path of economic theory.) From such risks books like Mr. Salzmann's help to deliver us.

J. H. CLAPHAM

Allgemeine Wirthschaftsgeschichte des Mittelalters (General Economic History of the Middle Ages). By RUDOLF KÖTZSCHKE. (Jena: Fischer. 1924. Pp. xiv + 626.)

PROFESSOR KÖTZSCHKE'S book is one of a series and must be so judged. When complete the series is to compose a *Handbuch der Wirthschaftsgeschichte.* The only other volume which has yet appeared is the first volume of Professor Brodnitz's *Englische Wirthschaftsgeschichte* (1918). There is to be another general volume on Ancient Economic History, and special volumes on Dutch, Swedish, Norse, Italian, Swiss, Danish, Austrian, Russian, Belgian, French and American Economic History. Such at least is the present plan, a plan which explains the predominantly German flavour of the volume before us. Not that it is by any means exclusively German: there is a section on Byzantine economics more satisfactory than anything to be found in the recent huge Byzantine volume of the *Cambridge Medieval History*: the English sections, though brief, are in the main excellent and no student of English agrarian origins could fail to learn from

Kötzschke's comparative treatment of German and English village history or of the German *Hufe* and the English hide; but the centre of gravity of the volume is—quite naturally, in the circumstances—in Germany. Probably the ideal General Economic History of the Middle Ages should have its centre of gravity somewhere in the Mediterranean lands. Professor Kötzschke's concession to this point of view consists in an excellent summary of the economic bequests of antiquity to the Middle Ages (in preparing for which he has missed Mr. Heitland's *Agricola*—but perhaps the post-war publications of the Cambridge Press are not easily accessible in Germany); the admirable Byzantine section before mentioned; a short section on Islam; the references which the plan of the book requires to Italy; and references which seem really inadequate to Spain. A student of mediæval commerce would be surprised to find that Catalonia does not occur in the index; though the discovery of five references to Barcelona might console him. This is the more to be regretted as the plan of the *Handbuch* does not at present include an economic history of Spain. No doubt Spanish economic history is exceedingly hard to write; but it will be a pity if a Handbook of Economic History is completed without reference, for example, to Professor Klein's brilliant study of the organisation of Spanish pastoral life and the merino sheep (*The Mesta, Harvard Economic Studies*, 1920). With its parallels in Southern Italy this migratory Spanish pastoralism is an element of the first importance in the general economic story of Europe, much more important than many facts of North European field-systems on which Professor Kötzschke dwells.

It must be repeated, however, that Professor Kötzschke's treatment of the North is most thorough and helpful. The divergent developments, rural and urban, of Germany proper, the half-German lands east of her, of France, the Low Countries and England are made clear with a learning that is always abundant and generally exhaustive. No doubt specialists in each country could fasten on minor defects. The sentence (p. 445), "Erst spät trat in England die heimïsche Kaufgilde (gilda mercatoria) auf (in Ipswich 1200)," is rather misleading because of the illustration selected. Why not say "in Canterbury before 1100"? Had mediæval Plymouth a population of between 6000 and 20,000? (p. 575). If landlords really did turn to pasture-farming immediately after the Black Death—for which there is, in fact, curiously little evidence—why should that drive men to the towns, if the population had fallen by 25 per cent.

or more? (p. 559). But the general treatment of English affairs is satisfying, in places definitely illuminating; and a reviewer cannot complain of what the Germans call the *Jagdeifer* of an author who has hunted down in the *Oxford Magazine* what Vinogradoff said of an American book in 1916. Some of the very latest books and papers have naturally escaped Professor Kötzschke; but they are few.

There is not any thesis or "tendency" in the book. It is, as the author claims in the Preface, "purely historical," and offers no "theory of mediæval economics" (*Wirthschaftsweise*). He has striven, he says, to follow in the steps of Rogers, Lamprecht, Inama-Sternegg, Cunningham and Levasseur. This is good leadership and the follower is not unworthy of it.

It is worth noticing in conclusion that full treatment is reserved for the earlier Middle Ages. The Crusades first appear on p. 498.

J. H. Clapham

Die Vereinigten Staaten von Amerika als Wirtschaftsmacht. By Hermann Levy. (Leipsic and Berlin: B. G. Teubner. 1923. Pp. vi + 135.)

To appraise the United States as an economic power within the compass of a brochure of one hundred and thirty-five pages suggests the task of spiritual enlightenment while the unknowing stands on one foot. Professor Levy's equipment as a scholar, his competence as a critic in economic affairs, are very great. He has made earlier visits to the United States and is familiar with important documentary and monographic materials. Out of these have come a definite formula supplemented by note-like chapters. The formula is that American economic growth represents a national endeavour to attain economic self-sufficiency. The chapters deal in somewhat familiar terms with population, agriculture, industry, industrial combinations, commerce, protectionism, merchant marine, and economic disturbances—in the main in development of the major theme, sometimes for their own interest.

The essay is neither a venture in conjectural history nor a motley of car-window impressions. Professor Levy attempts to draw no white rabbit from a silk hat, and rarely lapses into tourist recital of economic marvels. In particular is the later restraint to be commended. There has grown up, in the train of the European visitors who have lately "observed" us, almost an

economic counterpart of the ice-water, Pullman sleeping car, Prohibition violation "impressions" of Major Pond's thirty-day protégés, and American readers will rejoice that at least in Professor Levy's pages they have been spared the narrative.

The defects of the essay are in plan rather than in content. A thumb-nail sketch must compensate in sweep and vividness for what it lacks in detail and fidelity. As to scope, Professor Levy has written either too much or too little. An appraisal must not be cumbered with detail. A survey cannot be a sampling exhibit. As to intimacy, whether because of the interval since his latest visit to the United States or of the unavailability of recent material—such, for example, as the splendid apparatus supplied by the Federal Reserve publications—the reader, however sympathetic, has a certain sense of mustiness.

The fairest estimate of the essay perhaps is as a credential for a future performance, pitched in more ambitious key. Professor Levy may be sure of the sympathy and aid of all American economists in such an undertaking.

JACOB H. HOLLANDER

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Die Bedeutung Europas für die Entwicklung der Weltwirtschaft. By BRUNO KUSKE. (Cologne: Oscar Mueller, 1924. Pp. 114, gr. 8vo.)

DR. KUSKE, Professor of Economic History in the University of Cologne, explains in this book, based on a really vast knowledge, the economic importance to the world which in the course of centuries Europe has assumed. His conclusions reach the same result which A. Demangeon, Professor of Economic Geography in Paris, has stated in 1920 in his brilliant book *Le déclin de l'Europe* (Paris, Plon).

Prof. Kuske describes the successive phases of Europe in ancient times, the increase of its influence on the other parts of the world and the transformations of its whole economic organisation since the sixteenth century. Then he expounds the consecutive development of the production of food and raw materials overseas for European consumption, explaining its different influence on the new continents and on the old nations of Asia.

The European methods of production have been copied overseas as well as causing profound changes in the social structure of the older nations. Equally impressive is the exposition

of the latest phase of the emancipation of the other continents from the economic and political supremacy of Europe. This development was predicted in Germany some twenty years ago by the Socialist Gerhardt Hildebrand, who arrived in consequence at pessimistic conclusions as to the future of his own party. Kuske's practical postulate demands the fostering of a realistic solidarity among the European nations. To this end a new review *Pan-Europa* in Vienna, which is edited by Count N. Coudenhove-Kalergi, is also dedicated.

EUGÈNE SCHWIEDLAND

Grundriss der Statistik. By FRANZ ZIZEK, Professor in the University of Frankfort on Main. 2nd edition. (Munich: Duncker and Humblot. 1923. Pp. 553 in quarto.)

Hauptprobleme der statistischen Methodenlehre. By FRANZ ZIZEK. (Munich: Duncker and Humblot. 1922. Pp. 53 in octavo.)

PROF. ZIZEK, whose book on "Statistical Averages" (New York, 1913) has been translated into English by Prof. W. M. Persons of Harvard University, has recently published a revised edition of his large *Treatise on Statistics*, of which the first edition was exhausted in 1922 in a few months.

This work presents the whole of modern statistics, the general theory of statistical methods as well as the special branches of economic and social statistics (population statistics and statistics of sanitary, moral, intellectual and political conditions). In his first part all the various methods are fully exposed and characterised, so that in the second part the author has only to refer back to the previous treatment of the general notions and principles, which have to be applied in each particular investigation. In this way his work differs from earlier statistical literature such as the books of Giffen and Mayo-Smith, which cover, like Zizek's, all departments of practical statistics, but lack a methodological theory as a basis of unity and uniformity.

His figures include, of course, many international comparisons. But it is not figures that form the main part of this work; it chiefly endeavours to present social problems and to describe the statistical methods employed in investigating those problems; further, to establish the best methods which can be applied. In doing so Zizek expounds the statistics of some phenomena which hitherto have been insufficiently dealt with from a statistical point of view—such as banking, stocks and shares, rates of interest and the balance of payments of the great States; of course index-

numbers and the measurement of the cost of living are discussed, labour statistics systematically presented, and the barometers of business conditions dealt with. As Zizek does not make use of mathematics, everybody interested in economics can easily read his book.

For Prof. Zizek statistics need clear definitions. This thesis is also the central point of his pamphlet on the problems of statistical methods. Here he demonstrates that each statistical figure has to be determined by reference to fundamental notions concerning the facts dealt with. Of greatest importance is the definition of the unit of enumeration. According to our definition of an "unemployed person" or of a "household" the number of these will vary. Differences in statistical definitions are most frequently the reason why statistical data from different countries are not comparable; the fact that similar figures can be based on different definitions is also the cause that statistical "contradictions," or at least what appear to be such, so often occur.

Both books—which complete each other—may be read with interest and profit.

EUGÈNE SCHWIEDLAND

NOTES AND MEMORANDA

The Protection of the Indian Steel Industry

The Tariff Board, constituted last July, has, after a very detailed inquiry, issued its report recommending the protection of the Indian steel industry. The general verdict of the Board in favour of protection of some sort has all along been regarded as a foregone conclusion. The Government had declared its acceptance of the policy of "discriminating protection" recommended by the Fiscal Commission, and the Tariff Board had begun its deliberations by pointing out that it started from the assumptions of that policy. Its task was to decide whether the steel industry came within its terms. That it would decide in the affirmative has, as I have said, been treated as a foregone conclusion. In supporting its judgment it adds nothing, save in one important particular, to the reasons already advanced in favour of protection for steel by the Fiscal Commission. It repeats the hackneyed phrases about the importance of "key" industries, and of the steel industry in particular, for purposes of national defence, ignoring the fact that it will be a considerable time before, even under favourable circumstances, India can produce enough steel to render itself independent of imports in time of war. The great asset of the Indian steel industry is its large deposits of high-grade iron ore. The quality of its coking coal is poor and the cost of its labour is high when allowance is made for the large element of supervision that is always needed in large-scale production in India. The labour cost is really the crux of the matter. The Tariff Board remark, "In respect of labour India is at present at a disadvantage which will be removed as the workers acquire skill and experience." Although this prophecy is uttered in no conditional mood it can be treated as nothing but a pious hope. It is not so much the skill and experience of the ordinary skilled workman that is referred to as that of the supervisory staff. In other words, it means that the time is looked to when this staff will consist of Indians at small salaries in place of Americans or Englishmen at high ones. How long it will be before efficiency at low cost can be secured in this way no one can say. There will be many experienced

manufacturers in India who will place the date at approximately the arrival of the Greek Kalends.

It comes as something of an anti-climax to read in the report of the Board, after the narrative of India's advantages as a steel-producing country, that "Unless protection is given, there is no hope that it (the steel industry) will develop for many years to come, and there is serious danger that it may cease altogether." And yet a little later it is stated that "It is probable that the cost of steel production in India will fall substantially in the next three or four years, and there is reasonable assurance that at no very remote date Indian steel will be able to hold its own in competition with imported steel without protection."

For an explanation of these seemingly contradictory opinions one must turn to the circumstances of the Tata Iron and Steel Company. The steel industry in India is at present virtually a one-firm show. The protection of the industry is the grant of assistance to Tata's. This firm, started in 1907, began to manufacture steel in 1912. In its early years it made considerable profits in the production of pig-iron and can still do so. But it cherished ambitions to manufacture steel and it now consumes most of its own pig-iron. Until the boom period of the latter part of the war and just after it did not succeed in producing steel at a quality and price to compete with imported goods. It was kept going by the receipt of Government orders for rails at more than market prices. Then came the years of high prices and high profits. In 1920–1 its net profits were about three-quarters of a million sterling. It selected this period to place orders for the installation of a large new plant, much increasing its capacity for production. At the same time it entered into long-period contracts with the railways to supply rails equal in quantity to some 60 per cent. of its output at prices to be fixed by the c.i.f. price for imported rails prevailing at the time of delivery. Then came the rise in Indian costs of production and the fall in the price of imported rails. The profits disappeared. Large loans were negotiated to finance the new works, which are scarcely yet in full operation. It was drained of working capital. Moreover, with little immediate prospect of being able to produce at a profit its credit was greatly weakened. That explains the remark in the report of the Tariff Board, that "there is serious danger that it may cease altogether." There can be no doubt that the Tata Steel Company needed assistance, and they turned to protection to supply it.

It is not necessary to give here the details of the protection recommended by the Tariff Board. On structural steel specific duties are proposed equivalent at present prices to an increase of duty from 10 to 20 per cent. On bars and rods a specific duty increasing the present 10 per cent. to the equivalent of 27 or 30 per cent. On black sheets a duty equivalent to about 15 per cent. In the case of rails and fish-plates the method of protection suggested is different. In place of the existing 10 per cent. *ad valorem* duty there is proposed a specific duty of Rs. 14 per ton and bounties for the next three years at the rate of Rs. 32 for the present year, of Rs. 26 next year, and of Rs. 20 for the third year. The adoption of the bounty system in the case of rails is to meet the fact that owing to existing contracts for the supply of rails a protective duty would be of no assistance. At the end of three years the position is to be reviewed. It will be seen that the protection afforded to rails is equal to a duty of about 34 per cent.

These duties and bounties will, it may be supposed, enable the Tata Company to work at a profit now. The rate of protection granted is approximately that for which the Company itself asked. But what of the opinion expressed by the Tariff Board, that in the course of the next three or four years the cost of steel production in India will fall substantially? This fall is presumably to come about as the result of economies from the full working of the newly-installed plant and from a reduction in the wages bill. From the increased cost of coal, which has been a heavy item during the last few years, there seems no prospect of relief. For my own part I believe there is room for economy in wages, but the trend of wages in India is upward rather than downward, and on the whole this trend does not seem likely to be reversed, more particularly if a general protective policy is soon introduced into other industries. "The reasonable assurance that at no very remote date Indian steel will be able to hold its own in competition with imported steel without protection" may be comforting to the present generation of consumers who are asked to "sacrifice" themselves for the good of the steel industry. It is very doubtful whether it will be found to have any foundation in fact.

C. J. HAMILTON

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THE WAR'S INFLUENCE UPON VILLAGE LIFE

SOME years ago I was permitted to trace out for the readers of the ECONOMIC JOURNAL the changes in the population of certain rural villages in Warwickshire which had taken place between the Censuses of 1891 and 1911.

Upon the conditions prevailing in these villages in 1912 there has since supervened the incubus of the Great War, with its dislocation of home life and of the local industrial and other industries.

I am greatly indebted to the vicars of most of the parishes in question and to Mr. Owen, the Librarian of the Public Library in Leamington, for kindly furnishing me with the numbers of those joining up or conscripted and of the killed in each parish.

How great has been the consequent upheaval may be judged from the fact that the percentage of the male inhabitants, according to the Census of 1911, withdrawn for naval or military service, varied from 19·6 at Claverdon to 44·6 in the adjacent parish of Snitterfield, and for the rest of the parishes varied between 25 and 35 per cent. Thirty per cent. would be a fair average for the whole. But, as men of the military age between twenty and fifty comprise about two-fifths of the total male population, the percentage of this age period recruited at some time or other in the course of the War would be nearer 75 per cent.

The actual total number for all the parishes, with the exceptions of Stoneleigh ecclesiastical parish and of Stockton and Napton, of which I have been unable to get the requisite particulars, and with the addition of Bishop's Itchington, a village, like Stockton, of lime-workers, was 1,261. The proportion of these men who were killed varied considerably for different parishes, according probably to the regiments into which they enlisted and to the tasks assigned to those regiments. For Bishop's Itchington it was one in eight and for Snitterfield it was one in four. But the total killed was 222, or about 17·6 of those called up.

Such a depletion of the ranks of men in the prime of life and at the height of their producing power is bound to have left some trace of itself in the record of changes in population to be found in Spennell's local Directory, quoted in the previous article of

March, 1915, as checked with the Census for Warwickshire issued last autumn.

This evidence is apparent in the considerable increase in the amount of new blood, as attested by the names which appear in 1920, though at the previous date of 1912 unknown in the ten villages the subject of the present inquiry, namely, Cubbington, Barford, Stoneleigh, Westwood, Harbury, Bishop's Itchington, Moreton-Morrell, Claverdon, Snitterfield, Wellesbourne, and Tysoe. The date 1920 allows a twelvemonth's interval for the disbanding of the troops and their return to their native places after the Armistice.

Taking all the new householders in the entire area according to Spennell's Directory, namely, 422, we find that they form just over 17 per cent. of the 2,416 householders recorded in the Census, and slightly more than one-third of the men enlisted and called up. Five of our villages are more completely enumerated in Spennell than the others, and for them the percentage is 22·6 of new blood. This is probably the truer proportion.

This brings us to the question, to what occupations has this immigrant population applied itself? How far have such occupations been immediately productive, or distributive, or in service, or have the new inhabitants pursued callings away from their place of residence, or else are retired, or are pensioners, or otherwise persons of leisure?

The answer is that the leading occupations specified both before and since the War have been, first, farmers; second, labourers, mostly on farms but including some lime-workers and others; third, shopkeepers; fourth, male domestic service. Gardeners are not included because they cannot be distinguished from jobbing gardeners nor female domestic servants because they are not householders and therefore do not appear at all.

Upon comparing the number of persons having new names who went into these occupations between 1912 and 1920 with the numbers with new names who had adopted them between 1905 and 1912, we obtain the following very definite results.

A larger proportion of the immigrants are now going into agriculture than was the case between 1905 and 1912. This increase is slightly greater among those who describe themselves as farmers than among labourers, and at both periods the farmers were nearly as numerous as the labourers, possibly even more so, because among the latter are probably a few who are not farm workers. The actual numbers are, for 1905–12, thirty-four farmers to thirty-nine labourers, and for 1912–20, forty-six

farmers to forty-nine labourers. These, it will be borne in mind, are exclusively persons the newness of whose names proves them to be immigrants. There are no doubt other recent immigrants who cannot be identified as such. The same parishes do not always attract both classes. Out of a total of eighty-four farms, forty-seven have changed hands since 1912.

Distribution absorbs fewer immigrants now than formerly. Only ten of these have gone into shopkeeping since 1912 in place of eighteen previously. The clothing trade is left severely alone. Dread of the increasing competition from the towns is probably a factor here. It is rather surprising that smiths and mechanics in the metal trades also show a falling off. The decline in male servants—coachmen, grooms, and butlers—is very marked, being from thirty-eight to only eight, and is only slightly offset by a rise of from six to ten in chauffeurs, and even these are probably not all in private service.

Most striking of all is the increase in the retired class of both sexes. In 1912, out of 2,253 households, 119 were new-comers since 1905, who apparently belonged to this class. In 1920, out of 2,416 households it had increased by 168 new-comers, that is, by 41 per cent. These are males. Females in the like category had grown from twenty-seven to forty-eight persons. Cubbington, Barford, Wellesbourne, and Westwood are all well patronised by the leisured class, but Barford is easily first, being pleasantly situated on Shakespeare's Avon and within three miles of the county town. These figures do not include a dozen army officers. They do no doubt include a large but unidentifiable proportion both of statutory old-age pensioners and also of pensioners whose pensions are deferred pay. If, however, the proportion for our villages be the same as for the rural districts of Warwickshire as a whole according to the Census returns, which distinguish between the "Unoccupied" and the "Retired," then the retired males would be about one in five of the retired and unoccupied taken together.

A curious fact is that the retired appear to be less numerous in proportion among the older residents than among the new arrivals of the last fifteen years or so. This is not what would be expected. Still, it receives some corroboration from the Census Report, which remarks on the advanced age prevalent among general labourers, gardeners, and farmers and their labourers still active—just the classes which make up country life.

In this connection it may also be here observed that, on a rough average of all the villages, rather over 20 per cent. of the

householders appearing in the 1920 Directory are found also in that for 1893. Now no householder will be found under the age of twenty-one, therefore the population named in the earlier Directory will now be aged about fifty and upwards. In Harbury the proportion is as high as 32 per cent. This also is confirmed by the Census, from which it appears that the age of 23 per cent. of the inhabitants of the Rural Districts with which we are concerned exceeds fifty.

Every symptom points to considerable emigration, as well as immigration, between 1911 and 1921. The extent to which farms have changed hands is a case in point, as we have seen. After allowing for excess of births over deaths there has been a loss in population from this cause between 1911 and 1921 within the four Rural Districts with which we are concerned of 2,298 persons. To the same source may be attributed in great measure the fact that, within the same period, 437 names have died out in our villages. And the total of the names which have died out between 1893 and 1920 appears to be 1,288, though this may be somewhat exaggerated owing to the list of names for 1893 being imperfect, while their places have been taken by upwards of 850 families with entirely new names.

The shortage of house accommodation of which so much is heard in some rural neighbourhoods does not appear so much in evidence in our villages. In Wellesbourne, Tysoe, Bishop's Itchington, Harbury, Snitterfield, and Cubbington the number of houses is within two or three of the number of families. The Census authorities employ the term, "structurally separate dwellings," which they have coined in order to include flats and tenements, both of which types are almost unknown in Warwickshire. In Westwood, Stoneleigh, Claverdon, and Moreton-Morrell, buildings new since 1911 have overtaken the increase in inhabitants. Throughout the four Rural Districts in which our villages are situate there are only eighty-two houses occupied by more than one family out of a total of 9,548 houses.

We may also check the adequacy or inadequacy of accommodation in another way, by dividing the number of the population by the number of rooms, when we find that the average works out at about 1·2 room to each person. Indeed, throughout the county, outside the big towns, it is only in a few villages in the northern part that the proportion sinks below one room per person. In Cubbington, a large and typically working-class and small middle-class village, where there are only three or four houses larger than a moderate-sized farm-house, the average is 1·16.

To sum up: it is clear from the evidence above cited that, even in these rural, and in some cases remote, parishes a slow but incessant re-shuffling of the inhabitants is constantly taking place. It would further appear that emigration is not the result of absence of available accommodation, for sharing one cottage between two families is almost unknown, and these cottages themselves appear to have a fair amount of accommodation, for there is nothing approaching to overcrowding in the technical sense of more than two persons to one room, and the places of those who leave are taken by fresh arrivals.

Farming appears to attract more into its ranks than it was doing before the War. Perhaps the spurt given to agriculture by the War itself had not exhausted itself at the date of the Census. But it attracts more farmers than labourers. From another point of view, country life entices also some of those who are not compelled by their avocations to live in towns or close to the scene of their occupations. Increased facilities for locomotion have already done something in this direction, and the practice of broadcasting and of listening-in is likely to do more still by relieving the monotony of country life.

But eloquent testimony is borne to the decreased means of the hitherto well-to-do in the great drop in the number of male servants. It is true that this latter class furnished some of the early recruits for the War. But had not means been wanting to their employers, either they would have returned to their situations, or else their places would have been filled up before now. But this evidently has not taken place. And in any event the difficulty of inducing domestics to remain in the country in preference to the town would militate against retaining large staffs.

C. H. d'E. LEPPINGTON

ECONOMIC CONDITIONS IN MOGUL INDIA

SIR THEODORE MORISON'S contention (p. 268 of the ECONOMIC JOURNAL, June, 1924), that the positive evidence regarding the economic condition of the people in Mogul India should be discounted by the silence of Edward Terry appears to me to overlook important limitations (*a*) in the scope of Terry's account, (*b*) in the experience on which his account was based.

(*a*) Terry described the national income, but did not examine its sufficiency for the population, or its actual distribution. The passage on "discommodities," on which Sir Theodore relies, is

part of the long description which begins, " This wide monarchie is very rich and fertile; so much abounding in all necessaries for the use of man that it is able to subsist and flourish of it selfe, without the least helpe from any neighbour." Having thus declared his standpoint as a worshipper at the shrine of national self-sufficiency, Terry dilates on the productive resources of the country, or, as he says, its commodities, and then turns aside to those " discommodities "—the weather, and the vermin—of which he had personal experience. Anything he had to say regarding defects in the distribution of the national income would not come here; we should naturally look for it in a later passage dealing with the standard of life, but what he says on this topic relates to the upper classes, with whom he mixed freely. He does not describe the life of the common people, either because it did not interest him, or because he knew very little about it; on either hypothesis, his silence is not significant.

(*b*) Terry had practically no experience of normal conditions. Nearly the whole of his time in India was spent in the Emperor's camp, a moving city of " no lesse then 200,000 men, women, and children," practically all of them drawing fixed pay provided, mediately or immediately, by the State, and travelling in country where supplies were ample, and where normal prices were very much lower than those of the cities on which the rates of pay were based. So long, then, as local supplies were adequate, and Terry says " wee never felt want of any provision," the camp and the neighbourhood must both have been happy, the former living cheaply, the latter experiencing an abnormal influx of silver in payment for its spare produce. It appears to me that no legitimate inference can be drawn regarding normal conditions from Terry's silence: we may infer that he noticed no misery, but the area of his observations was one in which normal misery would have been alleviated by temporary and exceptional circumstances. Evidence regarding normal conditions must be sought in the observations not of residents of the Imperial camp, but of the men who lived and worked for years among the people; Terry's limited experience excludes him from this category.

W. H. Moreland

OBITUARY: ENRICO BARONE

Too soon after the death of Pareto, Italian political economy suffers a new loss by the death of Enrico Barone. Like Torrens and Wolkoff, Barone began life as a soldier; having been Colonel on the Italian General Staff, and author of important works on military history (especially on the Napoleonic Wars). After his retirement from the colours in 1907, he devoted himself with great zeal to political economy, and soon became one of the leading representatives of the mathematical school, whose methods he expounded with great ability in his *Principles* (1908). He published also some lectures on colonies and commerce, given at the High Commercial School of Rome, an excellent report on the limitations of output practised by the Consortium of the Sicilian sulphur producers (1909), and a brilliant essay on industrial combinations, in the French volume: *Problèmes actuels de l'économique* (1922). His last writing was a destructive criticism of the so-called *Hallesism*, the gigantic plan of an international bank, whose fragmentary application has ended just now in a judiciary seizure.

ACHILLE LORIA

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society:

Andras, J. B.
Andrew, A. J.
Ashton, G. V.
Bairstow, W. R.
Balfour, Sir Robert, Bart.
Balmforth, H. B.
Barnard, J. H.
Beadle, H. G.
Beaty-Pownall, J. T.
Beckley, S. D.
Bellerby, J. R.
Bent, S. C.
Bhimpure, Prof. B. L. V.
Birrer, R.
Bladen, V. W.
Blunden, Miss G.
Boothman, T.
Boraman, W. J.
Bothamley, B. P.
Boucher, H. T.
Bowen, L. C.
Bragg, Ross W.
Brook, G.
Brooke, H.
Brown, J. I.
Brunner, C. T.
Campbell, C. G.
Casey, A. B.

Cave, L. W.
Challiner, B.
Chapman, S. B.
Cherrington, S. P.
Christie, W.
Clark, Sir William, K.C.S.I., C.M.G.
Clarke, C. T. W.
Cleaver, A. H. W.
Coldridge, C. D.
Cole, T. R.
Conolly, F. G.
Conrad, H.
Cooksey, H.
Corder, B.
Craig, W. W.
Dargo, J.
Daymond, L. B.
de Blank, J.
de Bosschere, H. M. J.
Dent, G. E.
Dickenson, E. T.
Dixon, J.
Dobie, D. J.
Dolman, L. H.
Edlmann, F. J. F.
Elahie, S. M.
Elliott, J. L.
Ellis, R. G.
Eltenton, H. S.
Emburey, A. G.
Evans, A.
Falconer, C. S.
Fells, H. J.
Fletcher, F.
Foley, F. W.
Foster, R.
Glendinning, A. J.
Goodman, H. F.
Gosling, P.
Graham, M. K.
Hadfield, H.
Harding, F. A. J.
Harper, R. H.
Harris, A. L.
Harvey, Sir Ernest.
Hasan, Prof. M. A.
Haynes, A.
Heggie, R. C.
Higginbotham, W. H.
Hogben, S. J. E.
Holmes, C. E.
Holmes, R. W.
Holt, H.
Hoosain, Mohamed S.
Hurren, P. S.
Hurst, J.
Hyde, F.
Jagtiani, H. M.
Jarvie, J. G.
Job, H. S., O.B.E.
Johnson, L. D.
Jones, K. L.
Joshi, Prof. R. M.
Kazarine, S. M.
Kennish, F. C.
Kindersley, Sir Robert M., G.B.E.
King, W. T., junr.
Kipling, J. S.
Kirton, W. P.
Lane, J. A.
Latif, S. A.
Lees, C.
Lewcock, F. J.
Lister, G. A.
Longbottom, Revd. H. D.
Martin, A.
Maxwell, W. R.
Meyrick, H. W.
Morris, T.
Mukerjee, Prof. A. C.
Mundy, L.
Murch, H. A.
Neale, C. H.
Neville, W. B.
Norman, F. C.
Paice, C. T.
Parker, E. H.
Paterson, K.
Peacock, E. R.
Price, G. A.
Pucknell, P. E.
Pugh, J. P.
Ramsden, F.
Reddick, Miss O. F.
Redman, E. F.
Reid, Miss M. L.
Retief, C. A.
Rhymer, E. T., J.P.
Richards, A.
Roberts, R. A.
Robson, J. S. J.
Routledge, J.
Rowland, J. L. F.
Rukmini-Amma, Miss C.
Sankar-Menon, T. C.
Sawyer, G. H.
Schofield, H.
Schurz, Franklin D.
Scott, T.
Shaw, E. A.
Shen, Tsao C.
Shephard, C. Y.
Skinner, Maj.-Genl. B. M.
Smith, Edgar L.
Smith, G.
Smith, H. J., O.B.E.
Sones, V. D.
Sorrell, J. W. T.
Speller, S. R.
Spencer, P. F.
Standingford, J.
Steele, C. E.
Stidston, A.

Stone, G.
Suzuki, Kakutaro.
Taylor, H.
Thornton, O. A.
Trafford, J. G.
Turner, J. D.
Venn, J. A.
Wallace, B. E.
Waller, W. P.
Walters, D. R.
Walton, L. E.
Ward, E. L. N.
Weber, Georges M.
White, N. E.
Whitehead, H. J.
Whitehouse, G.
Williams, E. B.
Williams, R. O.
Wilson, W.
Wood, H. H.
Woolley, E. W.
Wright, C. C. M.
Wright, R. W.

The following have compounded for life membership :—

Balmforth, Hubert B.
Bellerby, John R.
de Bosschere, Hubert M. J.
Harding, Frederick A. J.
Hoosain, Mohamed S.
Jordan, Rev. C. B.
Mitchell, George A.
Peacock, Edward R.
Schurz, Franklin D.
Smith, Edgar L.
Speller, Sydney, R.

The following have been elected to library membership :— New College, Oxford; Sri Pratap College, Kashmir; Director of Land Records, Punjab.

Fellows who intend to subscribe for copies of Professor Edgeworth's "Collected Works," or of Professor Knapp's "State Theory of Money," and have not yet forwarded a post card to the Assistant Secretary, Mr. S. J. Buttress, 6 Humberstone Road, Cambridge, are asked to do so at their early convenience.

Mrs. Marshall will be grateful if those who are in possession of letters from the late Professor Alfred Marshall will kindly communicate with her at Balliol Croft, Madingley Road, Cambridge.

A desire having been expressed for the establishment of some lasting memorial to the late Sir Charles Loch, a Committee, appointed for this purpose, has come to the conclusion that the most appropriate form for such a memorial to take would be the endowment of an Annual Lecture or Course of Lectures (preferably in connection with one of the Universities), with the object of preserving and developing Sir Charles Loch's conception of the relation of charity to social life. Contributions to the Loch Memorial Fund will be received and acknowledged by the Hon. Treasurer. Miss E. G. Powell, Osbornes, Liphook, Hants.

RECENT PERIODICALS AND NEW BOOKS

Economica.

JUNE, 1924. *Consumer's Surplus: A Reply.* PROF. D. H. MACGREGOR. Assuming with Dr. Cannan (*Economica*, March 1924) the principles of total and diminishing utility, and with Marshall "that a change in the consumption of any one article taken by itself will be accompanied by changes in the consumption of other articles, but that the latter changes being distributed will be small in each case, and will not affect the marginal rate of purchase of utility," the writer concludes that a large part of our utilities are bought below the rate of willing expenditure. *A Note on Consumer's Surplus.* PROF. A. L. BOWLEY. The expression for consumer's surplus having been approximately identified by mathematical reasoning with the sum of the marginal utilities of the separate units, it is argued that there is nothing absurd about "Marshall's bridge illustrations"; as he is speaking not of *total utility*, but of a change of consumer's surplus. Some of the difficulties raised by Dr. Cannan would disappear if consumer's surplus is treated as relating to a group rather than an individual. *Recent Theories of Currency Reform.* DR. T. E. GREGORY. The theories principally discussed are those put forward by Mr. Keynes in his *Tract on Monetary Reform.* Mr. Hawtrey's *Currency and Credit* also secures attention.

Journal of the Royal Statistical Society.

MARCH, 1924. *The Inter-relation and Distribution of Prices.* NORMAN CRUMP. An instructive study of the *dispersions* presented by the groups of relative prices that go to making an index-number; pointing to a connection between the extent of dispersion and the magnitude of the index-number. *Foreign Trade and Ship-building.* R. Y. SANDERS. *Wholesale Prices of Commodities in* 1923. The *Statist* Index-number (Sauerbeck's continued) shows a fall in the average of forty-five prices from 131 in 1923 to 129 in 1924.

MAY. *The Census of Production.* A. W. FLUX. The construction and results of Census of Production in different countries are described and compared. *Publicity of Industrial Accounts.* SIR A. LOWES-DICKINSON. "Labour has yet to learn that more than one pint cannot be obtained out of a pint pot; but the acquisition of this knowledge is much hampered by the absence of information as to the contents of the pot or the division thereof, or even as to its size." *The Conditions Under which χ^2 measures the Discrepancy between Observation and Hypothesis.* R. A. FISHER.

Quarterly Review.

JULY, 1924. *Socialism, its Origin and Meaning.* DR. A. SHADWELL. *Family Allowances.* MRS. H. A. L. FISHER. On lines parallel to those indicated above in the review of Mrs. Fisher's *Economic Position of the Married Woman*, it is argued that the advocates

of the proposal "have a great deal more hard thinking and considered reasoning to do" before they can convince us that their proposals will lead not only to a better distribution, but also to equal or increased production, and to racial betterment.

Contemporary Review.

MAY, 1924. *Housing: the Rents of Working-class Houses.* E. D. SIMON, M.P.

JULY. *Mr. Wheatley's Housing Scheme.* RIGHT HON. C. F. G. MASTERMAN, M.P.

London and Cambridge Economic Service (Houghton Street, Aldwych, W.C.).

The objects of this publication (initiated 1923) are: first, to issue every month a bulletin of carefully chosen statistics with tables and diagrams, showing clearly the movements of all the main elements in the financial and industrial position up to date, with a summary and analysis of the changes and, so far as possible, a forecast of the near future; second, to issue periodically or occasionally memoranda on special topics, such as the volume and movements of foreign trade, the course of foreign exchanges, stocks of commodities, the condition of the money market, and the position of freights and shipping. Two special memoranda have been issued this year: No. 5 on "Relative Changes in Price and other index-numbers," by A. L. Bowley, and on "Stocks of Staple Commodities," by J. M. Keynes.

Prof. Bowley's first topic, changes since 1913 in prices and production, presents many striking facts; *e.g.*, "Exports in 1923 had since 1913 appreciated in price 22 per cent. in terms of things in general, and 25 per cent. in terms of imports. . . ." "The average money cost of work has almost certainly at least doubled in the nine years (1914–1923)." In the same period production as a whole appears to have fallen about 13 per cent. Under the second head, "Variability of Prices," there are not only many curious observations as to the recent behaviour of prices—especially the great increase in their *dispersion* as compared with the pre-war period. There are also justified and exemplified principles applicable to the making of index-numbers in general. "It is possible to estimate the accuracy roughly from the data of the known principles of the laws of probability." The relative prices for different articles cannot indeed be treated as *independent* observations; there is evidently much correlation where, out of sixty ratios, three are for wheat and flour, three for iron, and so on. Yet "the amount of correlation is less than might be supposed." "Examination of the figures suggests that we have an equivalence of about forty independent entries."

Mr. Keynes' memorandum also presents general conclusions of great interest in addition to detailed inquiries (into the circumstances affecting thirteen staple commodities). It is found that the proportion of the world's raw materials consumed by the United States is exceedingly high. They consumed in 1923 72 per cent. more copper, 46 per cent. more tin, 33 per cent. more lead than in 1911–13; while the consumption of those commodities by the rest of the world diminished by about 14 per cent. The world's consumption of raw commodities continues to be in

excess of its production. It is remarkable how sensitive the short-period price levels of many commodities are to maladjustments between the rates of production and of consumption of a comparatively small percentage amount. Over a period of a year or two demand and supply are generally quite elastic and can be reconciled by moderate price movements; but over a period of a few months they are apt to be inelastic, with the result of violent oscillations of price.

The monthly bulletin and the special memoranda are copyright, "issued to subscribers only," the annual subscription being £6 for a copy of all the documents (including a quarterly summary).

Indian Journal of Economics (Allahabad).

1924. *A Land Mortgage Bank.* RICHARD BARN. There is a clear opening for a bank lending on the security of land and building, and safeguarded against the dangers of such a business. *The Economic Value of the Prevention of Disease.* C. L. DUNN. Sanitation would prevent deaths and sickness, which cause great loss to the revenue and the national income. *Co-operation and Thrift in South India.* J. MATTHAI. *Diminishing and Increasing Returns.* CLARK A. WARBURTON.

International Labour Review (Geneva).

APRIL, 1924. *Freedom of Association and Trade Unionism.* J. NICOD. A survey of legislation and judicial practice shows in what sense and degree freedom of association normally prevails. *Hours of Work and Output.* OTTO LIPMANN. The optimum hours of work are shown to vary with occupation, race and individual capacities. The output depends much less on the duration than on the intensity of the work. *Minimum Wage Legislation in Canada.* J. W. MACMILLAN.

MAY. *The Adaptation of Wages to the Depreciation of the Currency in Germany.* DR. FRITZ SITZLER. *Industrial Democracy in Sweden.* DR. ERNST WIGFORSS.

JUNE. This number is devoted to the consideration of Leisure. RAYMOND UNWIN, Hon. Treasurer of the International Garden Cities and Town-planning Federation, shows the *Influence of housing conditions on the use of leisure.* A Committee of the Young Men's Christian Association contribute a Report on the *Leisure of the Young Worker.* BERTIE NYSTRÖM of the Social Board, Stockholm, writes on *The Use of Spare Time in Sweden.*

Quarterly Journal of Economics (Cambridge, Mass.).

MAY, 1924. *A Forecast of the Future of American Railways.* W. M. DANIELS. The outcome of present tendencies may be: a few great corporations with directorates representing not only proprietors but creditors, and the public as patron, employee and taxpayer. *The Case for Industrial Dualism.* E. A. ROSS. Nobody is to blame for the cause of modern troubles, the "intensification of capital"; the amount of capital per worker being now at least ten times greater than a century ago. Hence the fear of the capitalist to leave his plant idle, the power of the striker. The opposite evils of socialism and unlimited capitalism will be avoided if the community take over concerns in which

the capital per worker is considerable, say over $15,000; leaving the remainder to private enterprise. *Financial and Monetary Policy of Great Britain during the Napoleonic Wars, II.* N. J. SILBERLING. It is argued that the Bullion Committee Report "is a theoretical essay divorced from facts, abounding in misconceptions, and proposing impossible policy."

No Par Stock: its Legal Aspect. J. C. BONBRIGHT. *United States Commerce with Latin America at the (time of the) Promulgation of the Monroe Doctrine.* C. L. CHANDLER. The trade of the United States with Hispanic America in 1823 was important, and may have influenced Monroe and Adams.

Political Science Quarterly (New York).

JUNE, 1924. *The Present Status of the Labor Movement in Germany.* BORIS STERN. The percentage of the unemployed having increased from some 6 per cent. last July to 23½ in November, *pari passu* with the depreciation of the mark from about 30 million to a million million paper marks for one gold mark, labour suffered much, and has not been much benefited by the legislation following on the institution of the Rentenmark.

The American Economic Review (Cambridge, Mass.).

JUNE, 1924. *Social Philosophy of Mr. Bertrand Russell.* W. ORTON. A severe criticism. *Results of the British Railways Act of* 1921. C. E. R. SHERRINGTON. *Commons on the Legal Foundation of Capitalism.* WESLEY C. MITCHELL. To interpret rather than to pass judgment on Prof. Commons' book is the object of the article.

Journal of Political Economy (Chicago).

JUNE, 1924. *The Quantity Theory of Money.* J. LAURENCE LAUGHLIN. "The sooner the public mind is freed from the fallacies of the quantity theory, the sooner will we escape the pitfalls set for the confiding and the ignorant by specious monetary and credit schemes." *Agriculture and Price Stabilisation, I.* W. R. CAMP. The prices of farm products not varying *pari passu* with other prices, there occurs a maladjustment; as remedial to which two typical California organisations for the distribution of farm products are described. *The Eight-hour Day in Germany.* EMIL FRANKEL. The reform introduced November 1918 is threatened by the hostility of the employers. *Value of Injunctions in Labor Disputes.* E. E. WITTE. The benefits if any are outweighed by the bitterness engendered.

Annals of the American Academy of Political and Social Science (Chicago).

MAY, 1924. The subject of the number is *Competency and Economy in Public Expenditure;* of which various aspects are considered by different writers.

JULY. *America and the Post-war European Situation* is the subject of this number. The position of Germany, France and Russia having been separately considered, each by several specialists, the policy of America with a view to the maintenance of world peace is discussed. There is a supplement on the organisation and work of the League of Nations by George F. Kohn.

Monthly Labor Review (Bureau of Labour Statistics, Washington).

MAY, 1924. *What Eighty-six Years have Taught us about Selecting Labour.* HORACE CHENEY. The member of a firm which manufactures silk fabrics presents the results of statistics that have been kept for many years. The amount, and still more the quality, of a worker's product rise with the length of his service. The falling off with the advance of age is slight. The fact that women leave after much shorter time than men has an important bearing on their relative efficiency and the pay which they may reasonably and economically receive. In a group of broad silk weavers making the same quality of goods it was found that the unit cost of labour was about 7½ per cent. greater for the women than for the men, although the men received a wage about $4 a week (or 14 per cent.) more than the women. . . . For one thing, each man on the average operated 4·18 looms, while the women averaged only 3·3 looms each. There is not much difference in quality in the work of the sexes.

Conference on the Economic Aspects of International Affairs held under the Joint Auspices of the Chicago Council on Foreign Relations and the Illinois League of Women Voters. This being the third Conference held under the same Joint Auspices, the report of the important discussions may properly be noticed among *Periodicals.* Many subjects of European interest were instructively discussed by American experts: *Inter-Allied Debts, the Effect of Payment on Creditors and Debtors,* by PROF. R. J. RAY; *The Present Condition of International Exchange,* by WALTER LICHTENSTEIN; *Balancing National Budgets,* by PROF. E. L. BOGART. Under the head of *Economic Factors in International Relations,* MR. W. S. CULBERTSON deals chiefly with the export of capital; the varieties of which are classified with remarks on their significance for the exporting and the importing nations. PROF. HAROLD MOULTON discourses with authority on the *Report of the Dawes Committee.* PROF. IRVING FISHER, *On the Occupation of the Ruhr,* soars above the others into the region of "imponderables." First he notices some features in the Dawes Report in which he is personally interested, the making payments depend on the index-number of prosperity (as indicated by population, railroad earnings and other factors), and also on index-numbers for the purchasing power of money. Another peculiar feature is that Germany is to be regarded as acquitted of her obligation when payment is made *inside* of Germany; from which Prof. Fisher anticipates that a great many German Americans will become the virtual owners of Germany. Referring to the action of France, Prof. Fisher thinks she would have disarmed if the Americans had stayed and finished their job, if they had joined the League of Nations, had maintained Article 10, and specifically promised to defend France in case of an unprovoked attack by Germany. "They will not now disarm; for they haven't the sense of security they would have if we joined with them." He urges his countrymen to join the League of Nations and the World Court. It is their interest to do so: "either we (Americans) must compete with the rest of the world in armament, or we must combine with the rest of the world in disarmament." A moving appeal to motives higher than interest concludes this powerful address.

Journal des Économistes (Paris).

MAY, 1924. *Le Coût de la Guerre.* YVES GUYOT. The expenses of the war being expressed in terms of 1913 dollars, it is shown (*inter alia*) that the cost per head to Great Britain was (roundly) 525 dollars, exceeding the figure for France, Italy and Russia together, viz. 440. Comparisons are also made of the total expenditure per cent. of income, and of wealth for the different countries. *Le Budget Britannique.* W. M. J. WILLIAMS.

JULY. *Le Rapport de la Cour des Comptes.* YVES GUYOT. An examination of the Report on "les comptabilités vérifées en 1920–22." *Les accidents du travail dans les exploitations agricoles.* G. DE NOUVION. *La situation de l'Agriculture Anglaise et les trois partis politiques.* N. MONDET. All three parties have shown a deplorable ignorance of economics applied to agriculture.

Revue d'Économie Politique (Paris).

MARCH–APRIL, 1924. *La population.* J. BOURDON. Statistics relating to the movement of population in France in recent years. *Le mouvement des prix.* M. LENOIR.

Jahrbücher für Nationalökonomie und Statistik (Jena).

MARCH–APRIL, 1924. *Ueber den Geldwert.* H. G. HAENEL. *Der irrationale Begriff des Wirtschaftsmenchen.* H. SCHACK.

JUNE. *Zum Gutachten des Dawes-Kommission.* KARL MUHS. *Die Deutsch-russische Schule.* HANS JÜRGEN. A critical study on Russian Economists, writing in German in the first quarter of the nineteenth century; not properly described by Roscher as a "school," being far from unanimous.

Weltwirtschaftliches Archiv (Jena).

JULY, 1924. *Der entscheidende weltpolitische Wendepunkt der Vorkriegszeit.* PROF. H. BÄCHTOLD. *Wirtschaft und Staat als Forschungsgegenstand der Anthropogeographie und der Sozialwissenschaften.* DR. O. HANSSLEITER. *Zur Wirtschaftkreise in der Vereinigten Staaten im Jahre* 1920. PROF. A. MONTGOMERY.

Archiv für Sozialwissenschaft (Tübingen).

VOL. LII., 1924, No. 1. *Historismus.* KARL MANHEIM. "Statical thought" and the "philosophy of history as dynamical metaphysics" and other mysterious topics are celebrated in appropriate terms. *Die Aufstieg des Fascismus in Italien.* R. MICHELS. A historical study of which the portions relating to the economic programme of Fascists and to Pareto's sympathy with their politics will especially interest economists. *Kreditinflation und Geldtheorie.* W. MILDSCHUH. *Der Sozialismus als sittliche Idee.* EDUARD HERMANN. Referring to the recent writings of Steinbüchel, Radbruch, Wilbrandt and Tillich.

Zeitschrift für die Gesamte Staatswissenschaft (Tübingen).

No. 1, 1924. *Zur Geschichte des Zeitungs Abonnements.* DR. KARL BÜCHER. *Kontinentale und insulare Staatsbildung.* DR. GEORG BRODNITZ. *Beiträge zur Theorie des wirtschaftlichen Güterwerts.* DR. H. C. BODEN. *Zur gleitenden Lohnskala.* DR. KARL MUHS. *Ergebnisse der Internationalen Arbeitskonferenzen.* H. FEHLINGER.

Vierteljahrschrift für Sozial und Wirtschaftgeschichte (Berlin).

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MAY. *La teoria della valutazione dell' imposta.* EMILIO SAX. The distinguished Austrian defends the views on the relation of value to taxation which were expressed in his *Grundlegung* . . . (1887). *La micidialità dei tentativi di suicidio.* MARIO BACHI. The proportion of attempts to commit suicide which prove fatal varies with the frequency of suicide, with age, sex, the means adopted, and other circumstances. The inferences drawn from these correlated facts present a beautiful study in the logic of statistics. The apparent greater proneness of the male sex to suicide is partly accounted for by the greater effectiveness of the attempts made by men; and that fact is connected with the effectiveness of the means for which men have a preference.

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THE ECONOMIC JOURNAL

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A RETROSPECT OF FREE-TRADE DOCTRINE[1]

POLITICAL Economy is now old enough to have reached the stage of retrospect. I shall take advantage of this circumstance, and I shall ask you to consider with me a well-rounded body of economic ideas during a well-marked period. The body of ideas shall be the general English doctrine of International Free Trade. And the period shall be the century approximately which followed the publication of the *Wealth of Nations*. It is well marked in economic literature, for it covers the time which elapsed before the new developments made themselves felt which are associated with the names of Jevons and Cliffe Leslie. And it is well marked externally, for it came to an end before England had lost the commercial supremacy due to its early utilisation of coal and iron, and before English agriculture had begun to be seriously affected by the cheap grain of the new countries. The doctrine was imposing by its simplicity and symmetry. It consisted of a few easily intelligible propositions, following readily one upon the other, and so sweeping in their range, and so optimistic in their implications, that they dwarfed all cautious exceptions and qualifications. No great English economist indeed—neither Adam Smith, nor Malthus, nor Ricardo, nor John Stuart Mill—was, in fact, an out-and-out free trader so far as practical application was concerned. Still less were they resolute non-interventionists over the whole range of economic life; for entirely consistent and unlimited *laissez-faire* we should have to go to their more severely logical French contemporaries. But they based themselves on certain general principles, and they drew from them general conclusions which practical politicians could easily employ to justify an absoluteness of policy from which they shrank themselves; they were reverenced as spiritual

[1] Presidential Address, delivered before Section F of the British Association, Toronto, August 1924.

masters, whose occasional aberrations must be lamented or disregarded.

I shall endeavour first to set forth the doctrine in a number of brief propositions; then to make some observations under each head. The several theses will not be found quite so consecutively stated in any of the authoritative writings, and I pursue this method partly for ease of subsequent reference. But it will be agreed, I expect, that they fairly represent the general structure of thought on which rested the whole edifice.

These, then, are the propositions:

1. That Nature is beneficent. By "Nature" is meant, in this connection, the operation of the unpremeditated instincts, desires, passions of individual men and women. Any restriction of this operation by an authority outside the individual is "artificial," and therefore bad. Nature, so understood, is the scheme of things created by God. And since God, with infinite wisdom, has established this mechanism for the fulfilment of His purposes, Nature is, as it were, His Vicegerent, and the "laws" of its action are "providential." But theistic language may be dropped, and the theistic conception even repudiated. And then "Nature" remains as self-directed, and beneficent of itself; and the reverence with which it is regarded amounts in effect to deification.

This does not mean that every particular action dictated by a "natural" passion is, considered in itself, morally commendable: it may even be "shocking" to the moral sense. But the "natural" impulses work out on the whole for good, with only such a minimum amount of evil as is involved in the execution of the whole design. The wisdom of God is displayed in the folly of men: by an Invisible Hand they are led to promote salutary results which are no part of their intention.

2. That individual Freedom or Liberty is in itself a good thing. This is a corollary from, or rather, only another expression for, the preceding proposition. For by "freedom" or "liberty" is meant the right to pursue unchecked the instincts or passions implanted by Nature. It is true that this liberty must respect the like liberty of others; and reflection on what is involved in this qualification might suggest some doubt as to the validity of the proposition it qualifies. But this line of thought was left for subsequent generations.

So long as the purpose of the social union is conceived of as the enabling of the individual to follow his "natural" desires, their pursuit is regarded as a "natural right." Violations of

natural liberty are therefore inherently "unjust." But the conception of inherent individual rights may be repudiated; and then interference may be condemned simply on the ground that it is impolitic from the point of view of social utility. In any case the presumption is held to be on the side of "liberty." The term, first "natural liberty" and then "liberty" or "freedom" without the adjective, could thus be used, without formal argument, as bringing with it a whole atmosphere of commendation; while "interference" or "artificial" brought at once, and without attempt at formal proof, a whole atmosphere of disapproval.

3. That society is nothing more than an aggregate collection of individuals. Accordingly the wealth, the advantage, the profit of society as a whole is but the sum of the wealths, the advantages, the profits of the individuals composing it.

4. That every individual left to himself pursues his own interest his own way, and knows it better than anybody else. Accordingly, absence of restriction on the individual is the best means of serving the community. Social interest is identical with individual interest.

5. That every country has certain natural advantages. Left to themselves individuals will exert themselves in the directions to which these advantages point. It is, therefore, for the benefit of a country or nation that they should be left free to do so.

6. That in each country there is at any moment a certain given supply of capital and labour, which cannot be increased by any action of the State. Since, left to themselves, they will spontaneously flow into the employments most advantageous to themselves and consequently to the country, any action of a public authority which directs them towards employments to which they would not of themselves go, or keeps them in industries which they would otherwise leave, involves loss to the country.

7. That if another country can supply certain commodities more cheaply, it follows that that country must possess advantages which the importing country does not enjoy. Since these imports must be paid for by exports, they must be paid for by commodities in the production of which the importing country has an advantage. Each country thus obtains what it wants with the least expenditure of labour or capital, *i.e.* most cheaply, and benefits by international division of labour. Since the advantages in question are of divine appointment, to refuse to take the fullest advantage of international division of labour is to fly in the face of Providence. If the theistic conception is

dropped, and the argument is based on utility, the offence is the equally serious one of disregarding common sense.

8. That the national capital and labour can be transferred from one occupation to another. If an existing industry cannot be profitably carried on owing to foreign competition, the capital and labour involved can be transferred to some other manufacture within the country, and must inevitably be so transferred in order to provide the additional commodities necessary to pay for the imports. That the foreign country will—indeed, must—take commodities in return for what it sends, proves that in some exportable commodities the home country has an advantage. The destruction of a native industry is in itself a proof that it has no economic right to exist.

9. That, left to themselves, people will buy whatever they want at the cheapest price. This, therefore, must be their interest. And since the State is a collection of consumers, and individual interest is social interest, the ultimate criterion of the interest of the State is the interest of consumers.

In these nine propositions and their corollaries consists the whole of the generally accepted economic doctrine of the century which followed upon the great work of Smith. That they were held to be sufficient and decisive as late as 1878 is very authoritatively stated in the most widely circulated of treatises on the subject—the lectures of Professor Fawcett, which appeared in that year and quickly passed through several editions. "All the most effective arguments," he remarks, "that can now be urged in favour of free trade had . . . been stated with the most admirable clearness and force by Adam Smith, Ricardo, and other economists. In the pages of these writers are to be found many passages which furnish the best reply that can be made to the modern opponents of free trade." [1]

1, 2. The first two of the propositions—that Nature is beneficent, and that Nature consists in the unrestricted freedom of every individual to pursue his personal desires and interest in his own way—were inextricably associated in the minds of the first generation of English economists. It will be sufficient for our purpose to consider them together, under the term Adam Smith himself employs in a famous passage. When all preference or restraint, he says, is completely taken away, it gives place to "the simple system of Natural Liberty." [2] The

[1] *Free Trade and Protection*, 6th ed. (1885), p. 3.

[2] *Wealth of Nations*, Bk. IV. ch. ix. (ed. Rogers, ii. 272).

context shows that by " system " Smith means both the doctrine and the condition of things which results when the doctrine is put into effect.

We need not spend much time over the genesis of this doctrine. If we knew nothing of Adam Smith but the *Wealth of Nations*, and took care only to read certain parts of it, some sort of case might be made out for the view that the doctrine was for Adam Smith an induction from experience: this and this and this case of interference with natural liberty, we might suppose him to have found, were demonstrably harmful, and therefore, he concluded, all interference with natural liberty was harmful. No one need deny that some of the instances he cites did lend support to this contention; nor need anyone deny also that the contemporary system of governmental or corporate regulation was ill adapted to the needs of the capitalistic era then opening. But it would be to disregard all Adam Smith's antecedents as a philosopher; all that we know of the history and transformation of the conception of " Nature " from the Greek thinkers downward; all the evident affiliation of Smith with his predecessor Hutcheson, and of both with Shaftesbury; and in particular it would be to ignore the essential unity of the *Wealth of Nations* with Smith's other work, the *Theory of Moral Sentiments*, to refuse to recognise that Smith took over the doctrine of Natural Liberty from current theology and moral philosophy. The movement of his mind was fundamentally deductive: natural liberty, he started with believing, is beneficent; he expected therefore to find all interferences with it harmful, and he had no difficulty in discovering instances.

Buckle has asserted that Adam Smith's greatness is shown by his basing everything in his Moral Philosophy upon Sympathy, and everything in his Economics upon Self-interest, and by his leaving his readers to make the necessary adjustment between them. It would be a doubtful compliment, if true; but no one can suppose it to be true who has read his two works attentively. I am not concerned to maintain Smith's philosophical consistency; my own impression, for what it is worth, is that his system of moral philosophy is by no means water-tight. But Smith himself, down to the end of his life, thought of his Moral Philosophy and his Economics as forming one whole.[1] And the recurrence of certain characteristic phrases in the second

[1] Compare the last paragraph of the first edition (1759) of the *Moral Sentiments* with the Advertisement to the 6th edition (1790).

of his books shows clearly enough that he looked back on his earlier work as laying his philosophical foundation.

It is so necessary that this should be realised if we are to judge fairly some of his successors, that I will ask you to let me adduce one or two pieces of evidence.

Perhaps the most formal statement of his belief will be found in the generalisations to which he is led when considering the social utility of "resentment"—a passion which, he says, is "commonly regarded" as "odious." Odious though it be, it is, he holds, useful; and it is useful, in spite of the fact that it is not itself the outcome of conscious reasoning. For, as the very existence of society is at stake, "the Author of Nature has not entrusted it to man's reason to find out . . . the proper means of attaining this end." He then proceeds to generalise—substituting a personified Nature for her Author. "The economy of Nature is in this respect exactly of a piece with what it is upon *many other occasions*. With regard to *all* those ends which, upon account of their peculiar importance, may be regarded, if such an expression is allowable, as the favourite ends of Nature, she has *constantly* not only endowed mankind with an appetite for the end which she proposes, but likewise with an appetite for the means by which alone the end can be brought about, for their own sakes and independently of their tendency to produce it. Thus self-preservation and the propagation of the species are the great ends which Nature seems to have proposed in the formation of all animals. But . . . it has not been entrusted to the slow and uncertain determinations of our reason to find out the proper means of bringing them about. Nature has directed as to the greater part of these by *original and immediate instincts.* Hunger, thirst, the passion which unites the two sexes, the *love of pleasure* and the *dread of pain* prompt us to apply these means for their own sakes, and without any consideration of their tendency to those beneficent ends which the great Director of Nature intended to produce by them." You will notice how he again falls back into theistic phraseology.[1]

Scotch caution abundantly shows itself in both of Smith's books; and the method of hedging implied in the insertion of "upon many occasions" is highly characteristic.[2] But such

[1] This is in the long note at the end of *Moral Sentiments*, Part II. Sec. I. ch. v. (Ward, Lock & Co.'s Reprint, p. 71, under the title *Essays* . . . by Adam Smith).

[2] Even this qualification, it will be noticed, disappears with respect to "all the favourite ends of Nature," where she has "constantly" pursued the policy described.

hedging is never intended to give, and does not really give, any serious qualification to the general proposition This is amusingly illustrated by two parallel passages employing an identical phrase. In the one he is commenting on the respect which mankind has for success, for wealth and greatness. This respect might certainly seem to the moralist extravagant; if not, what Smith himself calls it, "the great and universal cause of the corruption of our moral sentiments." He continues, however, unperturbed: "This great disorder in our moral sentiments is by no means without its utility; and we may on this, as well as on *many other occasions*, admire the wisdom of God even in the weakness and folly of man. Our admiration of success is founded upon the same principle with our respect for wealth and greatness and is equally necessary for establishing the distinction of ranks and the order of society." [1]

In the other passage, Smith is commenting on the fact that "the world judges by the event and not by the design." This, again, might well seem to the moralist unsatisfactory. And so, indeed, it is; but it is all for a good end. "Nature, when she implanted the seeds of this irregularity in the human breast, seems, *as upon all other occasions*, to have intended the happiness and perfection of the species. . . . That necessary rule of justice that men in this life are liable to punishment for their actions only . . . is founded upon this salutary and useful irregularity concerning merit and demerit, which at first sight appears so absurd and unaccountable. But *every* part of Nature, when attentively surveyed, equally demonstrates the *providential care* of its Author, and we may admire the wisdom and goodness of God even in the weakness and folly of men." [2]

The truth is that Smith was bound by his general philosophical position to generalise, however frequently Scotch caution might check him for the moment. For if "the happiness of mankind" was "the original purpose intended by the Author of Nature," and if Nature was conceived as Smith conceived it, then he was prepared to find, on an "examination of the works of Nature," that they seemed all "intended to promote happiness and to guard against misery." [3] Any apparent defects must be the irreducible minimum of evil necessary for the existence of the good.

[1] The matter is considered at length in two places: Part I. Sec. III. ch. iii. (Reprint, p. 56); and Part VI. Sec. III. (Reprint, p. 224).

[2] Part II. Sec. III. ch. iii. "Of the Final Cause of this Irregularity of Sentiments." (Reprint, p. 96.)

[3] Part III. ch. v. (Reprint, p. 146.)

"All Discord, Harmony not understood;
All partial Evil, universal Good,"

as Pope has it.

As early as the date of his *Moral Sentiments* Smith began to find his philosophic optimism confirmed in the economic sphere. "Success in every sort of business" is "the reward most proper for encouraging industry, prudence, and circumspection. . . . Wealth, and external honours are their proper recompense, and the recompense which they seldom fail of acquiring." And thus "the general rules by which prosperity and adversity are commonly distributed . . . appear to be perfectly suited to the situation of mankind in this life."[1] The "pleasures of wealth," it is true, are vastly exaggerated by the imagination; but "it is well that Nature imposes upon us in this manner. It is this deception which rouses and keeps in continual motion the industry of mankind."[2]

One more quotation will enable us, by the help of a phrase which reappears in the *Wealth of Nations*, to pass from the ethical to the economic treatise. It is the passage in which he explains how beneficial to society in general and the poor in particular are "the luxury and caprice" of the rich. "They consume little more than the poor; and in spite of their natural selfishness and rapacity, though they mean only their own conveniency, though the sole end which they propose from the labours of all the thousands whom they employ be the gratification of their own vain and insatiable desires, they divide with the poor the produce of all their improvements. They are *led by an invisible hand* to make nearly the same distribution of the necessaries of life which would have been made had the earth been divided into equal portions among all its inhabitants; and thus, *without intending it*, without knowing it, advance the interest of the society and afford means to the multiplication of the species. When Providence divided the earth among a few lordly masters, it neither forgot nor abandoned those who seemed to have been left out in the partition."[3]

You will have been anticipating the passage I now go on to in the *Wealth of Nations*. It is that in which he explains how it is that "every individual," by directing the domestic industry of a country "in such a manner as its produce may be of the greatest value," though "he intends only his own gain," "is in this, as in *many other cases*, *led by an invisible hand* to promote

[1] Part III. ch. v. (Reprint, p. 147). [2] Part IV. ch. i. (Reprint, p. 162.)
[3] *Ibid.* (Reprint, p. 163.)

an end which was no part of his *intention*." [1] You observe how the very terms of the former treatise reappear; not only the "invisible hand," but also "intention" and "end"; and you will realise that "in many other cases" is not a qualification he intends to be taken seriously. The "invisible hand" is not, as some have supposed, the chance survival of a picturesque literary phrase; the idea, in that or some equivalent phrase, is the *leit-motif* of all his writing.

However the doctrine grew up in Smith's mind that—as one of my predecessors in this Chair has expressed it—"the *natural* forces of human desires and aversions . . . will *naturally*, and without conscious intention on the part of the individual, lead to the greatest advantage of society," and however much he may have supposed himself to have reached it by observation of surrounding facts, there can be no doubt, as that predecessor of mine has pointed out, that it "became the starting-point" of "the school of propagandists" who gave Political Economy its English connotation.[2]

So much the starting-point that it was unconsciously assumed. It hardly occurred to most writers explicitly to set it forth; and here, as elsewhere, we can be grateful to McCulloch for proclaiming what others were thinking. "The principles on which the production and accumulation of wealth depend are inherent in our nature" . . . and again: "The principles which form the basis of this science make a part of the original constitution of man and of the physical world." [3] And Buckle, summing up with unbounded admiration more than thirty years later the teachings of Smith, declares "there is a provision in the nature of things by which the selfishness of the individual accelerates the progress of the community." [4] Where the beneficence of natural liberty is not positively asserted, it is of course implied in the use of so condemnatory a term as "artificial" to designate any limitation of it: as, for instance, in the Merchants' Petition drafted by Tooke in 1820.

It can be easily understood that when Political Economy passed into the hands of a stockbroker like Ricardo and of utilitarian agnostics like the two Mills, the language of theism would fall into disuse. No longer were they inclined to echo the

[1] *Wealth of Nations*, Bk. IV. ch. ii. (II. 28.)
[2] Sir H. Llewellyn Smith, at the Meeting of 1910.
[3] *Principles* (1825), p. 15. (Reprint, p. 16.)
[4] *Civilisation in England*, Vol. II. ch. vi.

old saying "Nature: that is God Himself."[1] And it was not only because they had ceased to think theologically: it was because some at any rate could hardly fail to be more or less conscious that the turn Ricardo had given to the doctrine had deprived it of its optimistic character, and made it uncomfortably fatalistic. "Nature" was still enthroned; and if "God" means only a Supreme Power there was no reason why Nature should not continue to be called God, or God's Vice-gerent—were it not that that Supreme Power which had established "the Principle of Population" and "the natural price of labour" could hardly be respected, let alone loved.

When, however, we get to the period of the Anti-Corn Law League there was a return to Smith's optimism and Smith's theism. "The responsibility of having to find food for the people belongs," says Cobden in 1846, "to the law of Nature; as Burke says"—he continues—"it belongs to God alone to regulate the supply of the food of nations."[2] It is congenial to him to appeal to "the will of the Supreme Being"[3] and "the moral government of the world";[4] and to describe Free Trade as "the International Law of the Almighty."[5] And with the return to a theistic conception went a return to the idea of natural rights, which the Benthamite economists had likewise thrown over. Thus the petition of the Manchester Chamber of Commerce, drawn up by Cobden and two of his friends in 1838, bases itself upon "the unalienable right of every man freely to exchange the results of his labour for the productions of other people."[6] The eloquent orator, W. J. Fox, refused on this ground to compromise on Free Trade: "It is 'the very stuff o' the conscience': it is a principle upon which we have made up our minds, as embracing the right of man anterior to the existence of civilised society."[7] And after the further lapse of a quarter of a century, the editor of Bright's and Cobden's *Speeches*, Thorold Rogers, becoming Professor at Oxford and writing *A Manual for Schools and Colleges*, "assumes," as of course, "that there are such rights as are called 'natural,' and

[1] The mediæval legist Azo "explains Ulpian's *natura* by *id est ipse Deus*." Pollock, *Essays*, p. 42, from Maitland.

[2] Speech of Feb. 27, 1846.

[3] Speech of Aug. 25, 1841, quoting a petition of ministers of religion.

[4] Speech of Oct. 19, 1843.

[5] According to Mallet, Intro. to *Political Writings of Cobden*, p. vi.

[6] Text in Hirst's collection, *Free Trade and the Manchester School* (1903), p. 142.

[7] Speaking in 1844, *Ibid.* p. 174.

that these are the inalienable conditions under which individuals take part in social life." [1]

How far the return to Adam Smith's type of optimistic theism was due to the real religious sentiment of men like Cobden, to their own reading of the great Scotch master, and to the contemporary English environment, and how much it may have been due to the influence of the contemporary French writer Bastiat, it is not easy to say. Sir Louis Mallet, one of the literary custodians of Cobden's fame and associated with him in negotiating the French Treaty of 1860, regards it as "one of those coincidences which sometimes exercise so powerful an influence on human affairs" that, while Cobden was leading a political movement in England, "Frederic Bastiat was conceiving and maturing in France the system of political philosophy which still remains the best and most complete exposition of the views of which Cobden was the great representative." "These two men," he affirms, "were necessary to each other. Without Cobden, Bastiat would have lost the powerful stimulant of practical example. . . . Without Bastiat, Cobden's policy would not have been elaborated into a system." [2]

Bastiat has had hard measure dealt to him by later writers. In exchange for the extravagant laudation he received at the time from politicians and popular writers, he has been treated by recent academic economists with a certain patronising contempt. It is allowed that his apologues or parables, like the Petition of the Candle Makers against the Sun, are amusing *reductiones ad absurdum* of some of the demands of the Protectionist man-in-the-street. But he is dismissed as "a lucid writer, but not a profound thinker"; and the doctrine ascribed to him—"that the natural organisation of society under the influence of competition is the best not only that can be practically effected but even that can be theoretically conceived"—is characterised as "extravagant." [3]

I must avow that I have found nothing in Bastiat's most optimistic and theistic passages which is more than a more emotional repetition of Smith in the *Moral Sentiments*. Smith tells us of "that divine Being whose benevolence and wisdom have from all eternity contrived and conducted the immense machine of the universe, so as at all times to produce the greatest possible quantity of happiness." [4] Bastiat uses the same

[1] *Manual*, 2nd ed., revised, 1869, p. 223.
[2] *Cobden's Political Writings* (1878), Intro. p. vi.
[3] Marshall, *Principles*, 4th ed. p. 64.
[4] *Moral Sentiments*, Pt. VI. Sec. II. ch. iii. (Reprint, p. 210.)

mechanical image: "The leading idea of this work, the harmony of interests, is religious. For it assures us that it is not only the celestial but also the social mechanism which reveals the wisdom of God and declares His glory."[1] And the Divine Hand reappears: "Since in the sphere of labour and exchange the principle 'each for himself' must inevitably prevail as motive power, it is marvellous how the Author of things has made use of it to realise in society the fraternal motto 'each for all.' His skilful Hand[2] has made an instrument out of an obstacle. The general interest has been entrusted to private interest; and the former is inevitable precisely because the latter is indestructible."[3] Before we of this generation are contemptuous of Bastiat, it is only just to look into the rock whence he was hewn, and to the hole of the pit whence he was digged.

The truth is, Bastiat went behind Malthus and Ricardo, back to Adam Smith. He pointed out that what distinguished "the Economist school" of his time from various Socialist schools was at bottom this: that the former believed and the latter did not in the necessary harmony of unrestricted individual interests. This harmony was the principle from which "the Economist school" started in their arguments in favour of economic freedom. Their practical conclusions were in themselves correct; but the premise, the starting point, could not be correct, Bastiat averred—the harmony did not in reality exist—if the Malthusian doctrine of Population was true and the consequent Ricardian doctrine of Rent. And so, to save the premise, these doctrines must be thrown over.[4] And that, of course, is just what Cobden did, when he argued so frequently and strenuously against the fundamental proposition

[1] Preface, "To the Youth of France," to his *Harmonies Économiques* (1850). In English translation: *Harmonies of Political Economy* (1860), p. 9.

[2] "Son habile main."

[3] *Œuvres Choisies*, ed. Foville, p. 269.

[4] It is so easy to miss the precise point in a translation that it will be well to quote the original. "J'ai dit que l'Ecole économiste, *partant de* la naturelle harmonie des intérêts, *concluait* à la Liberté. Cependant, je dois en convenir, si les économistes, en général, *concluent* à la Liberté, il n'est malheureusement pas aussi vrai que leur principes établissent solidement *le point de départ*: l'harmonie des intérêts." And again: "La *conclusion* des économistes est la liberté. Mais, pour que cette conclusion obtienne l'assentiment des intelligences et attire à elle les cœurs, il faut qu'elle soit solidement fondée sur cette *prémisse*: les intérêts, abandonnés à eux-mêmes, tendent à des combinaisons harmoniques, à la prépondérance progressive du bien général. Or, plusieurs d'entre eux, parmi ceux qui font autorité, ont émis des propositions qui, de conséquence en conséquence, conduisent logiquement au mal absolu, à l'injustice nécessaire, à l'inégalité fatale et progressive, au paupérisme inévitable."

of Ricardo that the price of food regulates the rate of wages.[1]

Is it necessary to say that nowadays no serious thinker believes in the two propositions with which I have commenced? "Natural" and "artificial" are words we still use to beg a question; but no one is any longer at all thorough-going in their application. "Nature," as distinguished, as Adam Smith does, from "the slow and uncertain determinations of our reason," no longer has the comforting sound it once had. We may not think of Nature as "red in tooth and claw," or say, with another great poet, "Nature and man can never be fast friends"; but we can save Nature's character only by including in it precisely what Smith omitted: human reason. And when we put aside abstract prepossessions and simply watch the operation of social forces, we discover that on neither side of the antitheses, Freedom and Control, Liberty and Order, Competition and Combination, is there a necessary preponderance of good or evil. Factory Laws, Education Laws, Sanitation Laws alike show that no modern civilised State any longer believes that social interests can be left to the unhampered working of immediate individual desires and impulses. It is arguable that "Liberty" may still be the best policy to pursue in the matter of foreign trade. But the contention no longer starts with the immense presumption in its favour which it enjoyed so long as it was deemed the master key to a divine government of the world.

3, 4. The individualistic or "atomistic" conception of society, or of the State as its organised expression, and the doctrine of the identity of individual and social interests (in the sense that the pursuit of individual interests must necessarily, in general, conduce to social interests) were, perhaps, not inevitably associated ideas. For society might be conceived of as a mere aggregation of individuals; and yet, within the society so formed, the pursuit of individual interests—since all individuals are not

[1] It is interesting to pass from the first three paragraphs of Ricardo's ch. v. on Wages (1817) to Cobden's speeches of Feb. 24, 1842, and Feb. 8, 1844. Cobden avowedly bases himself in the matter of wages on Adam Smith; Speech of July 3, 1844. (*Speeches*, 1880, p. 105; cf. p. 119.) Compare the attitude toward Malthus and Ricardo of Cobden's friend, Thorold Rogers, who, in his *Manual*, speaks of Bastiat as "the great French economist." But before Bastiat there was at least one notable Free-trader who thought it necessary to protest against the Malthusian doctrine of Population and the Ricardian doctrine of Rent in order to preserve his exuberantly optimistic outlook. This was G. Poulett Scrope, the geologist and M.P., in his *Principles of Political Economy*, 1833. See Preface, p. viii, to edition of 1873.

equally powerful—might conceivably be regarded as injurious to the majority, and, in that sense, to society itself. Some such view was inculcated by Hobbes. From such a conclusion Smith and his followers were saved by their underlying confidence in Nature. For if each individual retained or should retain in Society his natural rights, and if the final outcome was bound to be good, that could only be because the pursuit of individual rights resulted in the common advantage. It would be superfluous to point out that the individualist view of the essential nature of society, and of the State as its organised expression, led to the limitation of State functions and to the policy commonly known as *laissez-faire*.

As in the case of Natural Liberty we need not ask how the atomistic conception of the social union came to Adam Smith. That it characterises his school is very certain. But Smith was a man of wide reading, and knew too much to readily give himself away by generalities. It is interesting to see how his followers forced his ultimate principles into the open. A good example is furnished by McCulloch. Time has dealt hardly with McCulloch. His name has almost disappeared from modern treatises. But he was the man from whom the general British public mainly learnt its Political Economy between 1825 and 1850; and the republication of his first edition in cheap reprints secured currency for his teaching long after the middle of the century in certain circles, and that in its earliest and least qualified form. Peacock with his "MacQuedy" in 1831, and Carlyle with his "McCroudy" in 1850 knew well enough what they were about; [1] for McCulloch might reasonably be taken as "the typical economist of the day." [2]

McCulloch has been employed in setting forth the general argument for individual enterprise. As is his wont, he does not scruple to appropriate, without marks of quotation, choice sentences of Adam Smith—as, less frequently, of Ricardo.

Smith had written thus: "Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society which he has in view. But the study of his own advantage naturally, or rather, necessarily, leads him to prefer that employment which is most advantageous to the society." [3]

[1] In Peacock's *Crotchet Castle* and Carlyle's *Latter-Day Pamphlets*.
[2] Leslie Stephen, *The English Utilitarians*, ii. p. 226.
[3] *Wealth of Nations*, Bk. IV. ch. ii. (Rogers' ed., ii. 26.)

Now listen how McCulloch copies this verbatim, but adds "labour" to "capital," and emphasises the completeness of the social benefit. Notice still more how he, quite correctly, inserts into the middle of the argument the fundamental principle on which it rests: "It may be observed that every individual is constantly exerting himself to find out the most advantageous methods of employing his capital and labour. It is true that it is his own advantage and not that of the society which he has in view; but, as a society is nothing more than an *aggregate collection of individuals*,[1] it is plain that each in steadily pursuing his own aggrandisement is following that precise line of conduct which is most for the public advantage."[2]

The large assumption on which the conclusion depended, viz. that individuals know their own interest better than any other man, or "select number of men," can teach them is, with McCulloch, "an admitted principle in the Science of Morals as well as of Political Economy"[3] which hardly calls for exposition.

An individualist view of the social bond involved, as I have already observed, a severe limitation of the functions of the State, or, in Adam Smith's language, of "the sovereign." Herein again Bastiat brings out what is implicit in Adam Smith. In his article on the State, written in 1848, in the midst of the Socialistic agitation of the period, he prides himself on being able thus to characterise it: "The State is the great fiction by means of which everyone tries to live at the expense of everyone.[4] . . .

"To-day as aforetime, everyone would like to profit by the toil of others. One doesn't dare to profess such a sentiment; one conceals it from oneself. So what does one do? We invent an intermediary; we turn to the *State*; and one class after another comes and says to it: 'You, who can properly and honestly do so, take from the public; and we will share.' Alas! the State has only too great an inclination to follow this diabolical counsel; for it is composed of ministers and officials—men, in fact, who, like all other men, desire at heart, and seize every opportunity, to increase their own riches and influence."

[1] McCulloch's own italics.

[2] *Principles of Political Economy* (1825), Pt. V. ch. iv. (Reprint, p. 74.)

[3] Reprint, p. 16.

[4] "L'Etat, *c'est la grande fiction à travers laquelle* TOUT LE MONDE *s'efforce de vivre aux depens de* TOUT DE MONDE" (Bastiat's own capitals and italics).—*Œuvres Choisies*, ed. Foville, p. 94. There is a poor translation in a volume edited by D. A. Wells, *Bastiat, Essays in Political Economy* (1893).

For quite such sweeping language from an English pen we have to come to America. And here is a characteristic passage from that forcible little book by the late Professor Sumner of Yale: *What Social Classes owe to Each Other*:[1] "As an abstraction, the State is to me only All-of-us. In practice—that is, when it exercises will or adopts a line of action—it is only a little group of men chosen in a very haphazard way by the majority of us. . . . 'The State,' instead of offering resources of wisdom, right reason, and pure moral sense beyond what the average of us possess, generally offers much less of all these things"; and so on.

In the last half-century we have seen a high doctrine of the State entering into England, and in a lesser measure into America, as part of the influence of the Hegelian philosophy and of a renewed appreciation of the Greek view of the State. We have seen the High-State doctrine confirmed by the visible efficacy of much positive State action. We have seen it, more recently, somewhat discredited by its association in Germany with a deification of the State which has seemed immoral; and although the State in all countries undertook during the Great War, with quite unexpected success, novel functions, its activity has, for the time, undoubtedly left behind a certain soreness in some of the business interests affected. Moreover, there has been much analysis in recent years of the conceptions *Society* and *State*; much consideration of the place of groups or associations within the State, and of a conceivable partition of functions. There are schools of political thought who are so indignant with the use which Governments calling themselves "the State" have made of their powers that they propose to abolish the State altogether: although their measures, when they seize power, indicate clearly enough that what they believe in is something similar under another name. For all these reasons, I naturally do not intend to set forth any view of my own, either as to Society or the State. I am content to have reminded you of the view entertained by the economists of the century we are considering. I do not suppose it would satisfy any serious thinker now. He might think Free Trade expedient; but he would not base it upon so one-sided and unhistorical a conception of the social union.

5. The idea that countries differ from one another in their physical productive resources, and that this is the occasion and justification of foreign trade, had been a commonplace with

[1] 1885, p. 9.

writers centuries before Adam Smith. It is to be found well developed in the letters of Seneca; it reappears in the great encyclopædic treatise of Aquinas; [1] and it was transmitted to the modern world by Grotius.[2] But there can hardly be any doubt that it came to Adam Smith from the well-known essays *Of the Balance of Trade* and *Of the Jealousy of Trade*, published by his friend David Hume in 1752 and 1758. Hume had written: "Nature, by giving a diversity of geniuses, climates and soils to different nations, has secured their mutual intercourse and commerce so long as they all remain industrious and civilised." And he had furnished Smith and his successors with a convenient shorter expression by remarking: "When any commodity is denominated the staple of a kingdom, it is supposed" (*i.e.* understood) "that this kingdom has some peculiar and *natural advantages* [3] for raising the commodity."

Hume also led the way for Smith to draw the conclusion that interference with the international trade which would arise from the divergency in national advantages would be unwise. And it is an illustration of the hold which the current Nature philosophy had on men's minds that Hume, whose own theism was of the most tenuous and hesitating character, puts the conclusion in theistic language: "These numberless bars, obstructions and imposts which all nations of Europe . . . have put upon trade . . . deprive neighbouring nations of that free communication and exchange which the Author of the world has intended by giving them soils, climates and geniuses so different from each other."

It need hardly be said that this religious interpretation long continued to be usual. As the great financier Alexander Baring, later known as Lord Ashburton, declared, in presenting the Merchants' Petition to the House of Commons in 1820: "It is one of the wise dispensations of Providence to give to different

[1] This learning is not my own. References will be found in Kautz, *Geschichtliche Entwickelung der Nat. Oek.*, pp. 156, 215.

[2] Grotius (*De Jure Belli ac Pacis*, II., 2, 13, 5) quotes from the Greek rhetorician Libanius, of the fourth century after Christ, a passage which he translates thus: "Deus non omnia omnibus terrae partibus concessit, sed per regiones dona sua distribuit, quo homines alii aliorum indigentes ope societatem colerent. Itaque mercaturam excitavit."

[3] The expression had been used, in 1691, by John Locke, in his *Considerations of the Lowering of Interest* (Reprint in *Essays*: Ward, Lock & Co., p. 566). He says, of Commerce: "For this the advantages of our situation, as well as the industry and application of our people . . . do naturally fit us. By this, . . . trade left almost to itself, and assisted only by the *natural advantages* above mentioned, brought us in plenty of riches." But Locke was far from drawing the Free Trade conclusion.

parts of the world different climates and different advantages, probably with the great moral purpose of bringing human beings together for the mutual relief of their wants." [1]

"Natural advantages," it will be allowed, will commonly be taken to mean advantages based on geographical conditions. This is what the reader, left to himself, would understand by Ricardo's language, when he says that "a system of perfectly free commerce" uses most efficaciously "the peculiar powers bestowed by nature"; [2] or by Cobden's language, thirty years later, when he speaks of England as setting "the example of giving the whole world every advantage of clime and latitude and situation." [3]

Smith is avowedly taking a strong case when he remarks that "by means of glasses, hot-beds and hot walls very good grapes can be raised in Scotland, and very good wine too can be made of them—at about thirty times the expense at which they can be imported." [4] But, if this is an extreme case, it is something equally clear in essential character, though usually less in degree, that the phrase "natural advantages" is calculated to imply. And this is how Ricardo himself interprets it: "It is this principle which determines that wine shall be made in France and Portugal, that corn shall be grown in America and Poland, and that hardware and other goods shall be manufactured in England." [5]

It will be remembered that Ricardo was writing in 1817: it was then thought that English hardware rested upon natural blessings in the way of coal and iron which other nations did not possess. The "natural advantages" which the United States and Germany, to mention no other countries, were destined to find in their coal and iron deposits had not yet been discovered. As late as 1832 McCulloch could write in his *Dictionary of Commerce:* "The hardware manufacture is one of

[1] Hansard (N.S.) I. p. 165, quoted in Page, *Commerce and Industry* (1919), I. 55.

[2] Chap. vii., on *Foreign Trade.*

[3] Speech of Feb. 27, 1846. A contemporary variant is "varieties of climate, situation and soil," in the *Edinburgh Review* for Jan. 1841 (a reference I owe to the late Professor Sidgwick). In Thorold Rogers we find a fresh spring of fervour derived from Cobden and Bastiat. The chapter on Foreign Trade in his *Manual* (1868) thus begins: "The various regions of the earth are variously favourable to the growth of vegetable and animal products. Different countries too have different geological characteristics." The exposition of "special advantages" by the economist who replaced Rogers in the Oxford chair is on the same lines: Bonamy Price, *Practical Political Economy* (1878), p. 309.

[4] II. p. 31.

[5] *Principles*, p. 157.

the most important carried on in Great Britain; and from the abundance of iron, tin and copper ores in this country, and our inexhaustible coal mines, it is one which seems to be established on a very secure foundation." [1]

"Natural advantages," however, as a basis for the universal application of the policy of free trade, was likely to suggest two comments. One is that the greater cheapness with which one country can produce goods as compared with another is obviously in some cases due to no peculiar advantage in the geographical sense, but simply to the historical fact that the manufacture was established there earlier. The other is that a country may even possess geographical advantages for a particular production but be unable to develop them if importation is free, because, for the time being, another country is producing more cheaply. If the "intention" of "the Author of the world," or of "Nature," is shown by the provision of particular physical resources, it can hardly be supposed proper to allow it to be indefinitely "counteracted"; [2] and this vital point in the argument was seized upon by Alexander Hamilton. Hamilton, the author of the greater part of *The Federalist*, is the most considerable name in the political science of the United States. His famous *Report on Manufactures*, written in 1790, only fourteen years after the appearance of the *Wealth of Nations*, and long before List and John Stuart Mill, shows a powerful mind working on the material presented to him by Adam Smith and the French economists, but with the needs and conditions of a new country before his eyes. And as soon as we realise that "advantages" was a key-word in the discussion, we cannot but appreciate the dexterity with which Hamilton employs it to justify protection. Writing at a time when water was still the usual motive-power for the new machinery, he alleges that in that respect "some superiority of advantages may be claimed" for the United States; as to the cost of materials, "the advantage upon the whole is at present upon the side of the United States"; and, generally, "it is certain that various objects in this country hold out

[1] J. L. Mallet in his *Diaries* (excerpted in *Political Economy Club, Centenary Volume*, 1921) comments on the success of this Dictionary: "Two thousand copies of the first edition sold, at £2 10*s*. a copy, in the course of nine months." Cobden, in 1835, described it as "a work of unrivalled usefulness, which ought to have a place in the library of every merchant and reader who feels interested in the commerce of the world."

[2] In the case of the exchange of English cloth for Portuguese wine, "the intention of Nature" was indicated to McCulloch by, *inter alia*, "the superiority of the wool of England, our command of coals," etc. (Reprint, p. 71.)

advantages which are with difficulty to be equalled elsewhere." [1]

Adam Smith was quite shrewd enough to foresee criticism on this line. He meets it boldly: "Whether the advantages which one country has over another be natural or acquired is in this respect" (*i.e.* cheapness) "of no consequence. So long as the one country has those advantages and the other wants them, it will always be more advantageous to the latter rather to buy of the former than to make." [2] This is, of course, perfectly true, but inconclusive. That one policy is clearly more advantageous in the short run does not prove that it must be more advantageous in the long run.

The form of the long-run idea with which we are most familiar in England is the concession which Mill makes, as he says, "on mere principles of political economy," with respect to the possible wisdom of imposing protective duties "in hopes of naturalising a foreign industry in itself perfectly suitable to the circumstances of the country," *i.e.*, as he goes on to say, "where there is no inherent disadvantage." [3] This, the so-called "Infant Industries" argument, I need not further elaborate. Mill recognises that such a policy involves a burden so long as the new industry cannot stand without protection; but "a protecting duty will sometimes be the least inconvenient mode in which the nation can tax itself for the support of such an experiment." It may be remarked that Mill's statement of the economic and psychological difficulties under which a new industry, in itself perfectly suited to a country, will ordinarily labour, is nothing more than what Hamilton had said fifty-eight years before.[4] Neither of them mentions a consideration which modern business has made of vast importance: the greater economy of manufacture which large-scale production enjoys owing to the wider distribution of overhead charges.

The form in which the same idea was presented to the German public by List was of more philosophical generality. It is summed up in the contrast between a policy based on present "exchange values"—which is his not unjust way of paraphrasing the language of Adam Smith—and a policy based on "productive powers." By suffering a present loss, a country may secure for itself a permanent source of wealth, which may repay many times over the initial loss.

[1] In the reprint in Taussig's collection: *State Papers and Speeches on the Tariff* (Cambridge, Mass., 1893), pp. 35, 36, 39, and elsewhere.

[2] Bk. IV. ch. ii. (II. p. 31.) [3] Bk. V. ch. x. p. 1.

[4] See the "very cogent reasons" set forth by Hamilton, p. 29, *seq.*

I do not propose to enter into the tangled and highly controversial question of the extent to which the policy of protecting infant industries or developing productive powers has been or can be wisely applied in particular countries, at different stages of development, and with varying physical resources. I do not forget what is said, and said with a good deal of obvious justice, about the selfishness of particular interests, and about infants not growing up. It is not necessary to substitute for the belief in the necessary beneficence of human selfishness under free trade any belief in the necessary beneficence of human selfishness under protection. But it is fair, I think, to say that experience, since the time of List and Mill, is not altogether barren of what may reasonably be regarded as successful applications of the List and Mill principle. As my purpose is merely to examine the free trade doctrine of Adam Smith and of the century following as a piece of abstract argument, I will take only one case.

The tariff history of the United States has long been the happy hunting-ground for those who sought evidence of the sordidness of protectionist politics. The conjunction of the development of vast physical resources with the working, for the first time on a big scale, of practical democracy, created conditions not always favourable to political virtue. "Lobbying" has become a term of such evil sound that to some minds it makes further argument unnecessary.

If, in this sea of dubious issues, any writer can be supposed to steer a judicious course, I suppose it is Professor Taussig, the colleague by whose side I was proud to serve many years ago at Harvard. In successive editions of his book since 1882, he has earned our gratitude by putting before us, if not all, at any rate most of, the main facts of United States tariff history. Moreover, he has been one of the few writers who have illustrated from modern experience the Ricardian doctrine of comparative costs, the more subtle form of the general doctrine of natural advantages. And now let us listen to what he has had recently to say of the iron industry of the United States during the forty years preceding 1915.[1] I am anxious not to involve him an inch beyond the distance he would be willing to travel. I will therefore quote a sufficiently long passage, and will add that, to do him complete justice, it should be read *in situ*.

"It might be alleged that the iron industry would have advanced during the forty years in much the same way, pro-

[1] *Some Aspects of the Tariff Question* (1915), p. 150.

tection or no protection. And yet the unbiassed enquirer must hesitate before committing himself to such an unqualified statement. Rich natural resources, business skill, improvements in transportation, widespread training in applied science, abundant and manageable labour supply—these, perhaps, suffice to account for the phenomena. But would these forces have turned *in this direction* so strongly and unerringly but for the shelter from foreign competition? Beyond question, the protective system caused high profits to be reaped and the stimulus from great gains promoted the unhesitating investment of capital on a large scale. . . . Thereafter, the community began to get its dividend. Prices fell. . . . The same sort of growth would doubtless have taken place eventually, tariff or no tariff; but not so soon, or on so great a scale.

"No one can say, with certainty, what would have been; and the bias of the individual observer will have an effect on his estimate of probabilities. The free trader . . . will be slow to admit that there are any kernels of truth under all this chaff. . . . On the other hand, the firm protectionist will find, in the history of the iron trade, conclusive proof of brilliant success. And very possibly those economists who, *being in principle neither protectionists nor free traders*, seek to be guided only by the outcome in the ascertained facts of concrete industry, would render a verdict here not unfavourable to the policy of fostering 'national industry.'"

The fact that such a verdict is possible in an outstanding case of this magnitude is not likely to impede the remarkable inversion of the old "natural advantages" argument which we can see taking place nowadays in several directions. There has, of late, been an increase in the number of States which have independent control over their fiscal policy. The belief—which may or may not be well founded—that these countries are fortunate in their climates, or soils, or mineral resources, or water-power, or any other of the physical gifts of their geographical situation—and these are what the ordinary man means by "advantages"—is now suggesting to them that, as with any other estate, it may pay them to expend something on development. Tariffs or bounties are, of course, from this point of view, simply forms of development expenditure. They would be inclined to echo the words of Adam Smith, though with a different application: "What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom."[1]

[1] Bk. IV. ch. ii. (II. p. 29.)

An obvious case in point is India, in its new constitutional character. In 1922 the Indian Fiscal Commission, after pronouncing for a policy of protection "with discrimination," recommended the appointment of a Tariff Board to exercise that discrimination, and laid down the principles by which it was to be guided. And the very first is: "The industry must be one possessing natural advantages, such as an abundant supply of raw material, cheap power, a sufficient supply of labour, or a large home market."

In this present year the Indian Tariff Board has made its first report on a specific industry. It recommends protection for the Indian steel industry on these grounds: "India possesses great natural advantages for the manufacture of steel owing to the richness and abundance of the iron-ore deposits and the comparatively short distance which separates them from the coal-fields. The natural advantages are so great that eventually steel manufacture in India should be possible at as low a cost as in any other country." Perhaps I had better say that I have no opinion on the particular proposal myself. I do not know whether the rich and abundant iron-ore deposits do in fact exist. But if they do, they are what the ordinary man means by "natural advantages."

To the Smithian economist, need I say, the only proof that a country has an "advantage" is the fact that it can produce more cheaply? "Advantage" with him is a comparative, not a positive idea. And yet it carries with it an implication that does not necessarily belong to it. In this respect it is like the biological conception of the "fittest" to survive, or, to come nearer home, the economist's employment of "utility." "Advantage" suggests that its possession is necessarily a good thing for the country which has it. But, in the comparative sense, every country which has a foreign trade at all must have an "advantage" of some kind or other, or it would not be able to export. Anything which enables it to produce exports more cheaply than it is worth while for the importing country to produce them is an "advantage." Read Professor Taussig's books: you again and again come on the idea that the reason why the United States should not enter upon this or the other branch of production is that the commodities in question—*e.g.* beet sugar—are more cheaply produced abroad by docile, unintelligent labour: "an inferior class which is utilised, perhaps exploited, by a superior." He comes as near contempt for them as is possible for a humane man. But if, in the interchange of

American machinery for European sugar, America's advantage is in its high-grade labour, by parity of reasoning the economic advantage of Europe is in its low-grade labour. And while this may be a reason for satisfaction on America's part, it is not so evidently a reason for satisfaction on Europe's part.

And, indeed, as soon as we begin to take a large view of history, it is quite certain that the utilisation of comparative advantages has sometimes been either a curse or a very mixed blessing. We are all familiar with Polish corn as supplying something like a local habitation and a name to the argument as to comparative costs.[1] But there is reason to believe that the export of corn from the Baltic lands to the countries of Western Europe was one of the causes for the depressed position of the peasant of the Baltic lands in the seventeenth and eighteenth centuries.[2] And in the nineteenth century, when the Prussian *Junker* was a strong free trader in order to get a foreign market for his corn, he consolidated the economic "advantages" of the lands east of the Elbe by buying up peasants' holdings and creating an agricultural labourer class which has become the most unsatisfactory feature in the German agricultural position.[3] Similarly, I suppose we all feel that the expansion of the American cotton area, and with it of slavery—during a period when the Southern planters were ardent free traders and anxious that England should be free to buy their raw cotton with its manufactures,[4]—was a means of exploiting the coloured race which it is difficult to look back upon with equanimity.

6. The next idea with which we have to deal is that every country has a particular supply of capital and labour, and that the State can do nothing, by protective measures, beyond diverting them to what is presumably a less profitable employment. This is stated by Adam Smith, first generally: when he says that a monopoly of the home market frequently turns towards

[1] See *e.g.* James Mill, *Elements* (1821), pp. 84–88, 135–137; followed by J. S. Mill, *Principles*, Bk. III. ch. xvii. § 2.

[2] See the interesting account in Naudé, *Getreidehandelspolitik*, I. 385 (in the series *Acta Borussica: Denkmäler der Preussischen Staatsverwaltung*, 1896). Naudé attributes the social condition of Poland, the cause of most of its political troubles, to the fact that its Government was not allowed by the landlords in the eighteenth century to pursue a mercantilist policy.

[3] See *Memorandum V.* on *Germany*, by the present writer, in *Final Report* of the Agricultural Tribunal of Investigation (1924), especially §§ 3, 4, 10.

[4] The English reader to whom the connection between slavery and the free trade views of the Southern States may be unfamiliar will find some of the relevant facts in Dewey, *Financial History of the United States* (1903), § 80; Bogart, *Economic History of the United States* (1907), § 217; Coman, *Industrial History of the United States* (1905), p. 190.

a particular employment "a greater share of both labour and stock of the society than would otherwise have gone to it"; and then when he makes everything depend on capital, and says that "no regulation of commerce can increase the quantity of industry beyond what its capital can maintain: it can only divert a part of it." [1] "Diversion" is the key-word.[2]

I will follow Smith's example by concentrating first on capital. And as soon as one looks into the exposition as found in Smith or McCulloch or John Stuart Mill, it must be apparent that the idea has a close resemblance to another once dominant [3] which Mill himself publicly abandoned in 1869, and which few English-writing economists have since had the temerity to say a good word for: the so-called Wage-fund Doctrine. In formulating the "diversion" argument Smith uses language about wages of which the doctrine of the Wage Fund, as defined later, was merely a crystallisation: "As the number of workmen that can be kept in employment by any particular person must bear a certain proportion to his capital, so the number of those that can be continually employed by all the members of a great society must bear a certain proportion to the whole capital of that society, and never can exceed that proportion." [4]

What Mill said about the Wage Fund is equally applicable to "the capital of a society" in its relation to industry: it is "not regarded as unalterable, for it is augmented by saving and increases with the progress of wealth; but it is reasoned upon as at any given moment a predetermined amount." [5] By a writer like McCulloch, who delights to make things superabundantly clear, this is expressly stated: "No country can possibly employ a greater number of workmen than its capital can feed and maintain. But it is plain that no restrictive regulation can of itself add one single atom to the capital." [6]

The reason, of course, is that given by Adam Smith: "The industry of the society can augment only in proportion as its

[1] II., pp. 25-26; cf. p. 272. Cf. J. S. Mill, *Principles*, I., v., § 1; Rogers, *Manual*, p. 235.

[2] The phraseology was probably suggested by Hume, who, expounding an idea considered below, says, "If the spirit of industry be preserved, it may easily be diverted" (Essay, *Of the Jealousy of Trade*).

[3] How dominant we are inclined to forget. But we may be reminded of it by reference to the once famous work of Buckle, *History of Civilisation* (1857), Vol. II., ch. vi., p. 357. Buckle speaks of it as "this vast step in our knowledge."

[4] II. p. 26.

[5] *Dissertations and Discussions*, IV. p. 42, *seq.*, excerpted in my edition of Mill, p. 992.

[6] Reprint, p. 73.

capital augments, and its capital can augment only in proportion to what can be gradually saved out of its revenue." [1]

But all this rests upon a view as to the character and extent of the fluidity of capital which was current among the writers of the period we are considering but which subsequent experience has shown to require profound modification. It was a view which, as we now see, combined an exaggerated estimate of the extent to which already invested capital is transferable within a country with a quite insufficient estimate of the extent to which newly accumulated capital is transferable as between one country and another.

As to the export of capital, Ricardo struck the note in 1817: "Experience shows that the fancied or real insecurity of capital, when not under the immediate control of its owner, together with the natural disinclination which every man has to quit the country of his birth and connections, and intrust himself, with all his habits fixed, to a strange Government and new laws, check the migration of capital. These feelings, which I should be sorry to see weakened, induce most men of property to be satisfied with a low rate of profits in their own country, rather than seek a more advantageous employment for their wealth in foreign nations." [2]

All these human touches—"fixed habits," and so on—are more appropriate to the age before joint-stock companies than to ours. Ricardo's account of the situation is so moderately expressed that it may be defended, even for our time, by a charitable interpretation. But the conclusion drawn by the succeeding generation was in fact a pretty sweeping one. To this clear testimony is borne by that Ricardian of Ricardians, Professor Cairnes, writing in 1874: "The assumption commonly made in treatises of Political Economy is that, as between occupations and localities within the same country, the freedom of movement for capital and labour is perfect, while, as between nations, capital and labour move with difficulty or not at all." [3]

Alexander Hamilton as early as 1790 showed a more statesmanlike prevision of the future trend of affairs: "Notwithstanding there are weighty inducements to prefer the employment of capital at home, even at less profit . . . yet these inducements are overruled either by a deficiency of employment or by a very material difference in profit. . . . The aid of foreign

[1] Bk. IV. ch. ii. (I. 30.) [2] *Principles*, ch. vi. p. 161.

[3] *Some Leading Principles of Political Economy Newly Expounded* (1874), p. 302.

capital may safely and with considerable latitude be taken into calculation" [1] by a country in the then position of the United States.

The history of Foreign Investment and its relation to Production is so far an almost untrodden field for the economic enquirer. Some sort of impression of the magnitude of the forces set at work may be given by the calculation that, before the war, British investments in other lands amounted to some 3,500 millions of pounds sterling, almost one-fourth of the total wealth of the United Kingdom,[2] or by the "common belief in the City (of London) prior to the war that the annual savings of the United Kingdom were then about £400 millions, and were devoted half to foreign and half to home investment." [3]

No one, I hope, will jump to the conclusion that what I am maintaining or even desirous of suggesting is that investment in other countries is necessarily injurious to the industry of the country wherein the capital has been created. I must not be supposed to be unaware of the contention that British investments abroad may help to provide Britain more cheaply with food or materials, or in other ways make foreign lands better customers for English goods. All I desire to make clear is that the proposition that all a Government can do by its legislation is to affect the application within the country of a predetermined quantum of capital is not tenable. It can indubitably, in some measure, influence, whether wisely or not, the quantum either of home-created or of foreign capital, or of both, devoted to production in a particular country.

In cases where there is no hint of protection by means of tariffs or subsidies to suggest alarm, this fact that Government can affect the quantity of capital employed is generally recognised. Thus, the desirability of encouraging an influx of foreign capital to England was one of the avowed motives of the Patent Act of 1907. Four years later it was asserted, apparently on official authority, that "some fifty firms had commenced, or were about to commence, work under the Act, and that the new factories involved a total outlay of some £800,000. It was hoped that employment would, in this connection, be found for 7,000 additional men, and that the wages paid to them would

[1] *Report*, pp. 38, 39.

[2] This results from a comparison of Sir George Paish's calculation of "Great Britain's Capital Investments," in *Jour. Roy. Stat. Soc.*, LXXIV. p. 187 (1911), with the *Economist's* calculation of national wealth in Hirst's chapter added to Porter's *Progress of the Nations* (1912).

[3] Lavington, *The English Capital Market* (1921), p. 205.

total something like £8,000 per week." [1] It may well be that these estimates were over-sanguine; but it does not seem to have occurred to anyone to deny that some attraction of foreign capital to England might reasonably be expected to take place, and that, so far as it did occur, it would be beneficial to England.

And one may go a step further. That, under certain circumstances, a tariff might have the effect of causing foreign manufacturers to set up works within the tariff walls has, for some time past, been illustrated by numerous and not unimportant examples; and English manufacturers have not been deterred from yielding to the pressure of foreign tariffs and establishing works abroad by any personal views of their own as to Free Trade or Protection.[2] They have often taken with them a nucleus of skilled English workmen.

But now, in recent years, various Governments have begun once more to take notice of the fact that tariffs do, under certain circumstances, cause foreign capital to be introduced, and to use it as part of the justification of a protective policy. I may give two examples. One can get from the Bureau of Commerce and Industry of the Commonwealth of Australia a long list of "some of the British Manufacturers who have established interests in Works and Factories in Australia." Among them will be found a dozen or more of the best-known English concerns; and the list is headed by the following notes:—

"(1) New names are being added to this list every week, and it shows that in the opinion of some of the most progressive British manufacturers it will pay to bring plant and skilled workers to the raw material in Australia. . . .

"(2) The new Australian Tariff is calculated to bring about the establishment of every natural and essential industry; and as the tariff affords real protection and opens up excellent prospects to the efficient, the next few years will see considerable industrial progress in Australia."

I have no opinion as to the wisdom, in Australian interests, of its present tariff. I cite the case simply as showing how impossible it is now to speak as if the capital which a country can have for its manufactures must always be entirely accumulated within the country itself.[3]

[1] *Times*, March 23, 1911.

[2] Some examples prior to 1903 are collected in my *Tariff Problem*, p. 77.

[3] This was Sir Robert Giffen's line of thought as recently as 1877. In his paper on Foreign Competition he argues that "the amount of capital required to replace us even partially is so great that it must take many years *for our competitors to accumulate* any such amount" (*Economic Inquiries and Studies*, II. p. 429).

The other case is even more significant. The new Irish Free State appointed last year a Committee of five Irishmen, of whom four were economists, to advise it as to its tariff policy. The Committee reported in what, with sufficient accuracy, may be called a free-trade direction. But in that report occurred the following passage: "The more complete the protection afforded by a tariff, the greater will be the inducement to outside competitors to retain their Irish market by coming inside the fiscal barrier and establishing factories in the Free State. And in the existing condition of industry the expenditure will be undertaken by very large industries in the hope of retaining even a small fraction of their existing market. . . . The new competitor will, it is true, in a sense establish an Irish industry and provide employment for Irish workers."

All that the Committee find to say, by way of demurrer, is that "in this case backward Irish industries will be faced by a home competition from a highly organised rival quite as serious as that from which they have sought to escape." [1] That is to say, free trade must be maintained in the interests of "backward Irish industries."

A century and a third before, Alexander Hamilton had thought it necessary to refer to a like fear of competition with the home producer: "It is not impossible that there may be persons disposed to look with a jealous eye on the introduction of foreign capital, as if it were an instrument to deprive our own citizens of the profits of our own industry." His own view was different: "Instead of being viewed as a rival, it ought to be considered as a most valuable auxiliary; conducing to put in motion a greater quantity of productive labour and a greater portion of human enterprise than could exist without it." [2]

The Government of the Irish Free State seems more inclined to follow Hamilton's lead than to be deterred by the prophecy of its Tariff Commission; for the Minister in charge of the measure which has lately been introduced into the Dail for "a limited . . . experiment in the use of a tariff for the stimulation of Irish industry" [3] expressly mentioned the expectation of attracting capital from outside as one of the motives justifying the new departure. Here, again, I had better safeguard myself: as to whether a tariff on the particular commodities proposed is wise

[1] *Reports of the Fiscal Inquiry Committee*, Dublin, 1923, § 126.

[2] *Report on Manufactures*, p. 39.

[3] Dail Eireann: *Parliamentary Debates*, April 25, 1924, p. 42 (tobacco, boots, confectionery); 70 (jam). Cf. the utterances of other Deputies; 127 (boots); 130 (tobacco); 155 (soap).

for Ireland I am not in a position to have an opinion; nor do I know how much non-Irish capital is likely to be attracted in these particular cases. I refer to this instance of Ireland simply as showing that not only the Irish Government but also its Committee of Economists are of opinion that legislation can have some influence on the amount of capital employed within the country.

I shall pass to more controversial ground if I refer to recent events in Great Britain itself. But it ought to be possible to state what, as far as one can make out, are assured facts without implying necessarily any opinion as to the policy with which they are associated. One is that the Swiss Chemical interests have been encouraged to enlarge considerably their plant in England since the Dyestuffs (Import Regulation) Act became operative in January 1921. The other is that the McKenna Duties have led some of the largest foreign manufacturers of motor-cars to establish works in Great Britain. They have usually begun with the importation of parts, and with merely assembling and finishing in Great Britain; yet even for that purpose large factories and many workpeople are necessary. In one important instance, the manufacture has become almost entirely British. That the British preference on imports from the Dominions has had the effect of causing a certain transfer of American capital to this Dominion is, of course, well known to the Canadians in my audience.[1]

Perhaps some countries may be the better without imported capital and others without exporting it: perhaps the Governmental measures which influence the movement in either direction are ill-advised, and we may sigh for the uncomplicated simplicity of the time when every country used only, and used all of, the capital it had itself accumulated. But that is not the world in which we live.

7, 8. The next of the generally accepted propositions in the sequence we are now considering was this: that while the capital and labour within a country were quantities the amount of which no Government action could influence, they could readily be transferred from one industry to another within a country, if their previous employment were taken from them by

[1] As lately as 1887 Lord Farrar will be found arguing that the increase in wages paid and persons employed in Canada under its protective policy must have been due to "a compulsory and artificial transfer of the labour and capital *of Canadians* from the industries in which they can produce more, to," etc.: *Fair Trade* v. *Free Trade* (4th ed., 1887, p. 63). The investment of foreign capital, especially American, in Canada, awaits, I think, its historian.

imports. It is the doctrine of the Internal Transferability of capital and labour, as existing conditions rendering free trade always beneficial.

The history of the literary presentation of the idea is suggestive. Like so much else, it probably came to Smith from Hume. Hume, in seeking to remove the alarm lest the "interference" of our neighbours with any of our staple trades could do us great harm, argues that "if the spirit of industry be preserved, it may *easily* be diverted from one branch to another; and the manufacturers of *wool*, for instance, be employed in linen, silk, *iron*, or any other commodities for which there appears to be a demand." [1]

From this statement Hume would probably not have been disposed to draw the sweeping practical conclusions of later writers; [2] yet here is the transferability idea in germ. Of the idea in relation to capital I have already said something. Let us fix our attention on labour; for "manufacturers" here means manual operatives.

Hume was writing in 1758. The use of coke for smelting iron was only just beginning; none of the great inventions in the iron and mining industries had yet been introduced: neither puddling, nor rolling, nor the steam engine. The only textile industry to which "power" had been applied was the relatively small silk industry; not one of the revolutionary changes in cotton spinning and weaving had been made, and the engineering and shipbuilding trades were far in the future. Moreover, Hume is specifically referring to "the staple industries" of the country; and there may have been some justification in the pre-machine age for thinking that—except in the case of highly skilled artisan crafts producing luxury goods—labour could move pretty easily to and fro. Even so, the "easy" diversion of workpeople from the textile industries to the iron manufacture rather suggests a literary man's unacquaintance with the actual conditions of working-class life.

Adam Smith, twenty years later, thought it necesssary to argue the matter more at length. He makes four points.[3] The first is, that the soldiers and seamen disbanded at the end of the Seven Years' War were gradually absorbed in the great mass

[1] Essay, *Of the Jealousy of Trade*. (Reprint, p. 197.)

[2] For he continued to print by the side of this Essay the preceding Essay in which he argued that "a Government has great reason to preserve with care its people and its manufactures."

[3] Bk. IV. ch. ii. (II. 43); italics added.

of the people and found work in a variety of ways, without any "sensible disorder," "though they no doubt suffered *some inconveniency.*" "To turn the direction of industry from one sort of labour to another" "is surely much easier." The second is that "to *the greater part of manufactures* there are other *collateral* manufactures of so similar a nature that a workman can *easily* transfer his industry from one of them to another." The third is that "*the greater part of such workmen are occasionally employed in country labour.*" And finally that, whatever happens, there will, in any case, remain the same "stock" or capital in the country, and that this will employ an equal number of people in some other way.

Obvious comments may be made on each of these points. The use of a term like "inconveniency"; [1] the use of the word "easily" to describe transference even to "collateral" manufactures; [2] the view that whatever particular home industry might be killed by foreign imports, "the capital of the country remains the same"—a view so increasingly difficult to hold, as capital comes to be fixed in a specialised plant; these points each suggest some evident reflections.[3] But it will be enough to dwell for a moment on the remarkable argument that "the greater part of workmen in manufactures are occasionally employed in country labour." In the age of "domestic industry," agriculture and manufacture were in truth often combined, in various ways, by the same persons or families; though one may doubt whether this was true of "the greater part of workmen in manufactures" in England at the time Smith was writing. Need one say that the whole trend of development ever since has been away from such a combination, above all in England?

[1] The word is echoed by Fawcett, *Free Trade and Protection*, p. 9: "The loss and inconvenience which always accompany the transfer of capital and labour from one employment to another."

[2] Smith did, at any rate, unlike Hume, limit the ease of transference to "collateral" manufactures. T. B. Say—who, according to Ricardo, "succeeded in placing the science" of Smith "in a more logical and instructive order," and had more influence on English writers than is now remembered—rivals Hume in his economic imagination. If, he says, France refuses to take English woollens, "England will employ the same capital and the same manual labour in the preparation of ardent spirits by the distillation of grain that were before occupied in the manufacture of woollens for the French market." (1803; English translation of 1820.)

[3] Smith on the next page recognises that that part of manufacturing capital "which is fixed in workhouses and in the instruments of trade could scarce be disposed of without considerable loss." He could not foresee how large a part this was destined to become.

When we come to McCulloch, half a century later, there is an unmistakable change in the intellectual atmosphere. This country had in the interval entered, first of all the nations, into the machine and factory age; and, whether it was owing to that cause alone and the consequent cheapness of our commodities, or to other causes also, England had for the time a monopoly of the most important manufactures. The cotton industry, hardly existent in 1776, in 1825 was exporting goods to the value of much over 18 millions of pounds sterling. We had been, on balance, an iron-importing country; in the last three decades, imports had fallen by three-quarters, and exports had quadrupled. Accordingly, McCulloch could write quite in the strain of *Rule, Britannia!* Other nations might not be so blest, but *we* should flourish! Whatever "loss and inconvenience" might follow a Free Trade policy "in other countries," "our superiority in the arts is so very great, that only a very inconsiderable proportion of our population would be driven from the employments now exercised by them by the freest importation of foreign products." [1]

Accordingly there was no need to alleviate possible apprehension by invoking the aid of occasional agricultural employment. Any residue of doubt could be expeditiously disposed of by a piece of abstract argument, showing that, even in the improbable contingency that "a few thousand workmen" lost their jobs through free imports, no harm would be done. For since imports must be paid for by exports, an amount of work *must* be called for to create them, "equivalent" to that dispensed with. And this doctrine is asserted in its starkest form. There is no suggestion that the gain will be to the men already in those *other* trades which will now have larger exports, so that the nation would not suffer *as a whole;* or that the labourers now left idle will *ultimately* get absorbed. No; nobody is going to suffer, even for a short time. "Suppose that, under a system of free trade, we imported a considerable portion of silks and linens now wholly manufactured at home. . . . It is obvious that *such* of our *artificers as had* previously *been engaged in our silk and linen manufactures*, and were thrown out of these employments, could *immediately* obtain employment in the manufacture of the products which must be exported as equivalents for the foreign silks and linens." [2]

[1] Part II. Sec. II. (Reprint, p. 76.)

[2] In the edition of 1843 (p. 151) for *immediately* is substituted *in future*. But it is still the discharged artificers themselves who find the equivalent occupation.

It was not for another half-century that an English economist who could get the ear of the public began seriously to consider how far the transferability of labour and the transferability of capital—which he justly described as "the postulates of" the then current "Political Economy"—were in fact true.[1] Anyone who looks at his *Economic Studies*[2] will observe that Bagehot gives much more attention to capital than to labour; and that, as to labour, he occupies most of his space in demonstrating that in earlier times, and to-day in primitive countries, labour is *not* transferable. But, for such a country as England is now, he thinks "no assumption can be better founded." Labour does not flow so quickly from pursuit to pursuit as capital does: "but still it moves very quickly." There are, he grants, even at present in England, many limitations to mobility. "There is a 'friction,' but still it is only a 'friction'; its resisting power is mostly defeated, and at a first view need not be regarded."

Like so much else in actual industrial life the question of the extent of the mobility of labour has been subjected to very little quantitative investigation. But all who have come into close contact with the industrial population of the older countries will agree with me in feeling that "friction" is an inadequate and misleading term, and that, in any case, it is very necessary to go on to a "second view." Doubtless there is a considerable slow-movement mobility—the mobility of a glacier rather than that of a stream. It is chiefly exhibited in the inclination of young people (or their parents) away from obviously declining trades and towards such trades as happen to be within their reach where employment is supposed to be good. And then there

[1] Senior, as long before as 1835, had pointed out, with remarkable insight, that the mobility of labour was being lessened rather than increased by the industrial revolution. "The difficulty with which labour is transferred from one occupation to another is the principal evil of a high state of civilisation. It exists in proportion to the division of labour." As to capital, he anticipated recent writers by pointing out that "those costly instruments which form the principal part of fixed capital can scarcely ever be applied to any but their original purposes. They are employed, therefore, in the same way, long after they have ceased to afford average profit on the expense of their construction, because a still greater loss would be incurred by attempting to use them in a different manner."—*Political Economy* (in the series *Encyclopædia Metropolitana*), reprint of 1854, p. 217.

The disregard by subsequent writers of what one might suppose suggestive observations is curious when contrasted with the readiness with which Senior's Abstinence view of Interest and his sharpening of the Wage Fund idea were accepted. It was, perhaps, due to the failure of Senior to make any large theoretic use of the observations. And ideas which can be fitted into a prevalent general body of thought are more likely to be assimilated than disturbing ones.

[2] 1880, p. 21, *seq.*

are occupations—for instance, that of a carpenter—in which men can find employment in two or more alternative "industries," in the wider sense of that word now coming into use—for instance, in building proper or in shipbuilding. But the fact seems also to be that a workman with definite acquired skill seldom changes his occupation in a country like England; and I imagine this is the case also in the older countries of Europe. Even unskilled men, mere "labourers," seldom leave "the industry"—in the wide sense of the term—with which they have been associated. This is the case even when better-paid and more regular work is in fact available in some other occupation: the reasons are to be found partly in inertia, partly in attachment to local ties, but also quite as much in the need, or supposed need, of acquiring new skill, and the difficulty as well as risk of doing so. And hence, when men become unemployed, they cling to their own trade in the hope of being taken on again, to an extent which is inconceivable to middle-class people. Still more is this the case when it is short time or lowered remuneration they are suffering from.

Some of the recent developments of industrial organisation and legislation in the older countries which most of us regard with satisfaction have for their effect to lessen mobility. This is the result, for instance, of trade unionism, among more or less skilled operatives. The assertion that "trade unions increase mobility of labour" [1] is true as between particular shops and particular localities in the same industry: it is the reverse of true for adult workpeople who desire to shift from one industry to another. To say that certain trade unions do in effect impose obstacles to entry upon a trade is not necessarily to condemn them: it is but to state a fact. Unemployment insurance, again, in a country where there are recognised standards of wages, is bound, if it recognises a claim to a certain standard on the part of unemployed persons, to strengthen the tendency of workpeople once in a particular trade to stick to it. The National Insurance Act of 1920 lays down that a workman is justified in demanding unemployment benefit and declining proffered employment if that employment is not "suitable." If employment is offered in the same district—as will often be the case—it can be refused if the rate of wages is lower or the conditions less favourable than in the employment in which the workman was before ordinarily employed. And there seems to be a natural tendency in recent decisions of the courts to allow

[1] Beveridge, *Unemployment*, p. 105, and Index under *Trade Unions*.

specially trained or skilled men and women to refuse unskilled work, especially if it could be thought to endanger their return to skilled employment.

The effect which unemployment insurance may well have in this respect is more than hinted at in the comments of several of the Governments on the definition of unemployment recently proposed by a Technical Commission appointed by the International Labour Office at Geneva. That definition ran as follows: "Unemployment may be defined as the condition of a worker who is both able and willing to work but is unable to find employment *suitable to his qualifications and reasonable expectations.*" The implication of such a clause in a European country is indicated in the approving comment of the Government of Finland: "Skill in a trade and the possibilities of remuneration depending thereon generally fix the reasonable expectations of a worker." On the other hand, the Governments of new countries like Canada and South Africa are unwilling to recognise the claim which seems to be involved in "reasonable expectations." The explanation is that the industrial conditions are in fact very different. This is well explained by the Government of South Africa: "In the Union, with the exception of clearly defined trades . . . workers do not confine themselves to specified occupations, as they do in older countries where occupations and industries are more sharply defined or firmly established." [1]

In a work which is among the most outstanding products of English economic inquiry in the present century, and which has had powerful influence on English legislation, I find the sentence: "Adam Smith and his followers were right in emphasizing the mobility of labour as the cardinal requirement of industry." [2] In the table of contents this appears as: "The demand of economists for mobility of labour." Adam Smith and his immediate followers did indeed "demand" it, as itself a good thing in the interests of production. Later economists have sometimes been more cautious and have "demanded" it, but only as a postulate of their deductive reasonings, without committing themselves to an opinion as to its own merits. To assume its merits, without sufficient regard to contemporary conditions, and to base the establishment of a widespread govern-

[1] *Methods of Compiling Statistics of Unemployment.* Intern. Labour Office: Studies and Reports, Series C. Unemployment No. 7. Geneva, 1922. See pp. 9, 10, 11, 16.

[2] Beveridge, *Unemployment*, p. 216.

mental organisation upon this one "demand," is likely to lead to some disappointment with the results—as has been in the case with the British Labour Exchanges.

When a long-established industry in England has been seriously damaged—as has, of course, occurred again and again—by changes in foreign tariffs, it has, I think, seldom happened that it has entirely disappeared. It may permanently contract into narrower dimensions, and in the next generation its place in a particular town may be taken by another and newer industry. In this case its disappearance will have been attended by an amount of suffering and, what is worse, of demoralisation which "friction" hardly indicates. Or in another ten years it may have obtained new markets in other lands, and its output may be as large as ever. In this case we shall be told what an admirable thing is freedom in stimulating the enterprise of manufacturers and compelling them to improve their methods. That it sometimes does both, I do not dream of denying. But the deterioration of character which does so easily beset work-people during protracted periods of unemployment or under-employment is at least as important a fact as the blessings of the subsequent rebound.

And there is this to be added, that, just as the old doctrine of the national capital exaggerated its fluidity within a country when already invested in plant, and minimised its fluidity as between countries when newly created, so the doctrine of the national labour-force over-estimated its transferability from industry to industry within an old country, and overlooked the possibility of its transference to the same industry in another country. The migration of skilled labour to carry on its old occupation in a protected country does not take place on so large a scale as the migration of fresh manufacturing capital. But it has taken place repeatedly and is taking place now. And whether we in England or any other of the older countries view the phenomenon with complacency or concern, it presents a different picture to our eyes from that which was present either to Smith or to McCulloch.

9. The last of the large ideas which characterised the period we are considering is the unique emphasis it laid upon cheapness to the consumer as the test of social policy. I shall not go beyond Adam Smith for this. I will only quote three well-known passages. In the first he says: "In every country it always is and always must be the interest of the great body of the people to buy whatever they want of those who sell it cheapest. The proposition

is so very manifest that it seems ridiculous to take any pains to prove it." [1]

In the second, with the same crushing air of certitude: "Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident, that it would be absurd to attempt to prove it." [2]

The third passage is a compact summary of the system he founded. It is that in which he speaks, as it were in passing, of "the cheapness of consumption and the encouragement given to production" as "precisely the two objects which it is the great business of political economy to promote." [3]

I remember, when I was at Harvard, going, in the company of Francis Walker, to dine at the house of Edward Atkinson. None could know Atkinson without liking him; and we had personal reasons that evening for being interested in "the Atkinson cooker." But all I remember of the economic discussion which followed the repast was Walker's snort of speechless protest when Atkinson explained that to buy in the cheapest market and sell in the dearest was to carry out the Golden Rule. I thought it was only a playful extravagance on Atkinson's part, but original. I had not read my Cobden then as I have since had occasion to do. I did not know that the identification which startled Walker out of his politeness forms the concluding paragraph of one of Cobden's great speeches.[4] I had forgotten, also, that moving passage in one of his pamphlets in which Cobden declared that, in place of many of the glittering mottoes of our forefathers, "we must substitute the more homely and enduring maxim—*cheapness*, which will command commerce; and *whatever else is needful will follow in its train*." [5]

Some of the criticisms one comes across of Cobden are, one must confess, a little hasty. As the organiser of the first Faculty of Commerce in a British University, I should be the last to deny the vast importance of Price. And I by no means suppose that all the pleas for particular tariffs in order to keep up the workmen's standard of living have been well founded. All that I wish to say, after such a survey of a past period as we have been engaged upon, is that economic life has ceased to be as simple, if it ever were as simple, as those two great men, Adam

[1] *Wealth of Nations*, Bk. IV. ch. iii. (II. 68.)
[2] Bk. IV. ch. viii. (II. 244.) [3] Bk. V. ch. (II. 333.)
[4] Feb. 27, 1846. [5] *Russia* (1836), in *Political Writings*, p. 125.

Smith and Cobden, seemed to think it. It has not been so clear to the last half-century as it was to them that human well-being can be achieved by the application of one symmetrical cycle of principles. By the whole current of its industrial legislation the civilised world has protested against the all-sufficiency of cheapness. It has now embarked upon the double task of making a Living Wage a first charge upon the community and of giving Security a larger place in industrial life. This will be a harder business than to abolish old and often outworn restrictions on "natural liberty." Society has been so sorely disappointed in the hope that, if it sought first cheapness, all other needful things, like social peace, would be added to it, that it is in the mood to "explore other avenues," as the phrase goes—avenues as yet imperfectly charted.

WILLIAM ASHLEY

THE ECONOMICS OF THE DAWES REPORT AND THE LONDON AGREEMENT

I

The production of the Dawes Report marks an epoch in the history of the reparations problem. To Mr. Secretary Hughes belongs the credit of making an official proposal in December 1922 that a Conference should be held with American participation to discuss Germany's capacity to pay. This suggestion was later taken up by the German Government, which offered in its Notes of May 2 and June 7, 1923, to refer the whole reparations question to an impartial tribunal and to accept its proposals as to the amount and method of payment. Finally, on November 30, 1923, the Reparation Commission appointed a Committee of Allied experts "to consider the means of balancing the Budget and the measures to be taken to stabilise the currency." In drawing up its Report the Committee understood its terms of reference to mean the devising of a comprehensive plan by which the maximum amount of reparations could be extracted from Germany over a long period without involving inflation and the depreciation of the currency. The Report of the Dawes Committee was presented on April 9, 1924, and was unanimous. The signatories included in their Report the recommendation that the whole scheme should be adopted *en bloc*, and they declined to be responsible for any consequences that might arise if any important part of their proposals was tampered with. A Conference of the Allied and German Governments was held in London at the end of July, and the Dawes Scheme, with a few relatively unimportant modifications, was embodied in the Agreement of London, which was signed on August 30, 1924, and was soon afterwards ratified by all the Powers concerned.

The Agreement of London modifies profoundly the Reparations and Sanctions clauses of the Treaty of Versailles and takes from the Reparation Commission a great deal of its powers and functions under the Treaty.

(1) Certain annual payments are prescribed which Germany must raise in gold marks. In the first year, October 1924 to October 1925, these sums amount to 1,000 million gold marks (£50,000,000 gold), in the second year to 1,220 million marks

(£61,000,000), in the third year to 1,200 million marks (£60,000,000), in the fourth year to 1,750 million marks (£87,500,000), in the fifth year, 1928 to 1929, to 2,500 million marks (£125,000,000). The payments in the third and fourth years can be modified to the extent of one-third upwards or downwards according to the yield of the German taxes allocated to Reparations account. The fifth year is regarded as a normal year, and the £125,000,000 to be paid in that year represents the annual sum to be paid in succeeding years. This is a maximum sum, but it may possibly be exceeded if, as a result of an elaborately constructed index-number of prosperity, it appears that the wealth and taxable capacity of Germany have increased so that larger payments can be forthcoming without any greater burden. Further, if the commodity value of gold rises or falls by more than 10 per cent. the figure of £125,000,000 is to be adjusted proportionately. A very important practical modification of the Treaty of Versailles is the provision that the above annual sums are *inclusive* payments—*i. e.* they comprise the total value of all payments made by Germany on Reparations account in any one year, with the exception of any capital sums which may be raised to liquidate the annual payments. Thus the annual sums include the costs of the Armies of Occupation, and of the various Commissions of Control, the values of payments in kind, Clearing House operations, and in general all charges payable by Germany under the Treaty of Versailles. This provision, to which the French Delegation only agreed with great reluctance, is clearly of the utmost importance for the success of the scheme.

(2) Germany's financial liabilities under the scheme are measured in gold marks. The direct responsibility of the German Government for the payment of reparations is ended when the sums laid down to be raised in a given year have been handed over in marks to the Agent-General for Reparation Payments for deposit in the Reichsbank. Out of the sums thus deposited to the credit of the Allies the costs of the Armies of Occupation and of the deliveries in kind and other costs payable in marks will be met. The balance, if any, will then be available for direct payments in cash to the Allied Governments. The task of purchasing foreign currencies with the marks is entrusted to an Allied Transfer Committee, subject to the explicit proviso that the stability of the mark, *i. e.* its value in terms of gold, shall not thereby be endangered. Any sums which it is not possible to exchange into foreign currencies are to accumulate and are

to be held by the Agent-General for Reparations partly in the form of short loan money and partly invested in industrial debentures, mortgage bond and similar securities. If the accumulated funds reach a limit of five milliard marks (£250,000,000 gold), the annual contributions from the Budget are to be reduced so as not to exceed the amount actually withdrawn each year.

(3) Since the financial liabilities of the German Government for reparations are liabilities in marks only, the Allies have the greatest possible interest in preventing any depreciation in the external value of the mark. The scheme, therefore, provides for the reorganisation of the Reichsbank, which will have the exclusive right to issue paper money for the period of its Charter (fifty years). The notes of the Bank are to be redeemable as soon as possible in gold, and in the meantime are to be kept stable in value in relation to gold. While the direct administration of the Bank is in the hands of a German President and a German Managing Board, a new body is created entitled the General Board, consisting of seven Germans and seven foreigners (including one Dutch and one Swiss subject). This General Board has wide functions of control and supervision in regard to the organisation and operations of the Bank in all matters which might affect the interests of the creditor nations. Moreover, one of the foreign members, to be known as the "Commissioner," is responsible for seeing that there is no infringement of the provisions relative to the issuance of notes and the maintenance of the Bank's reserves.

(4) A partial moratorium is afforded to enable Germany to get her public finances into order and to balance her Budget. During the first year of the operation of the scheme (1924–5) the ordinary Budget is not (in theory) burdened with any charges for reparation payment. A loan of £40,000,000 [1] gold is advanced by the Allies to Germany, out of which she must provide necessary reserves for her note issue, and part of which she can use to finance internal payments (Armies of Occupation, payments in kind, etc.) on Reparation account during the first year. Both the £50,000,000 in 1924–5 and the £61,000,000 in 1925–6, which represent Germany's liabilities in the first two years of the scheme, are to be spent almost entirely on internal payments.

(5) The London Agreement goes beyond the Treaty of Versailles in providing for the setting up of a comprehensive system

[1] This loan was successfully floated in October 1922, being issued at 92 and bearing interest at 7 per cent. The loan was heavily over-subscribed in all the issuing countries.

of financial controls inside Germany. Firstly, the German railways play a very important rôle in the financial side of the scheme, and to ensure that their policy is governed primarily by revenue considerations, without reference to the industrial and commercial policy of the German Government, the railways are transformed from a State undertaking to a Company with a capital in marks equivalent to £1,300,000,000 gold, of which £550,000,000 are Reparation Bonds bearing in a normal year 5 per cent. interest with 1 per cent. sinking fund. The interests of Germany's creditors are safeguarded by the appointment of a Trustee for the bond-holders, and of a Railway Commissioner who has a general right of inspection over the whole railway system. It is laid down in Annex III of the Dawes Report that "if payment on the agreed scale failed to be reached, or even if there was serious danger that this failure would occur in the immediate future, the Commissioner, as the representative of the Allies, should be entitled to enter into full control [of the railways]." Further, out of the eighteen members of the Managing Board of the railways, one-half are appointed by the Trustee for the bond-holders, of whom four are foreigners and five Germans. The General Manager is a German. Secondly, the Reichsbank is reorganised with an important measure of Allied control and a Commissioner, as described above. Thirdly, the taxes on customs, alcohol, tobacco, beer and sugar are assigned to, and are under the control of, Germany's creditors, acting through a Commissioner of Controlled Revenues appointed by the Reparation Commission. Finally, there is the Agent for Reparation Payments, who is Chairman of the Transfer Committee and who is responsible for co-ordinating the activities of the three Commissioners of railways, the Bank and the Controlled Revenues.

(6) The Dawes Report reaffirms the principle laid down in the Treaty of Versailles, that the burden of taxation in Germany should be at least as heavy as in any of the Allied countries, and bases indeed a large part of its plan on the fact that, inflation having destroyed the whole of the German Public Debt, including the War Debt, the German Budget can fairly and reasonably be charged with moderate annual sums for the benefit of the Allies. A new consideration, however, is introduced by the statement that "The Committee is confident that it lies within the power of the German people to respond to the burdens imposed by the plan without impairing a standard of living comparable to that of the Allied countries and their neighbours in Europe, who are

likewise subject to heavy burdens, largely resulting from the catastrophe of the war." No provision, however, is made in the scheme in the event of the expectations of the Committee in this respect proving to be ill-grounded.

(7) An Arbitral Commission consisting of "three independent and impartial arbitrators," whose Chairman must be a citizen of the United States, is provided for by the London Agreement. This Commission is empowered, subject to the limits fixed by the Transfer Committee, to draw up programmes for the delivery of goods (payments in kind). These deliveries are not subject, either as regards the nature of the products or their amount, to the limitations fixed by the Treaty of Versailles. But "they shall be fixed with due regard to the possibilities of production in Germany, to the position of the supplies of raw materials and to her domestic requirements in so far as is necessary for the maintenance of her social and economic life, and also with due regard to the limitations set out in the Experts' Report."

(8) Elaborate provisions are made both in the Experts' Report and in the London Agreement for arbitration on almost all points where disputes could arise as to the execution of this scheme. In any deliberations by the Reparation Commission on questions arising out of the Dawes Plan, a citizen of the United States of America will take part in the discussions with full voting power. The Reparation Commission retains the power of declaring Germany to be in default of any of her obligations under the Treaty of Versailles as amended by the London Agreement, but—

(*a*) It must be established that such default has been caused by "flagrant failure to fulfil the conditions imposed by common agreement," *i. e.* it must be a case of "wilful default";

(*b*) In the event of an application to declare Germany in default being either granted or rejected by a majority vote of the Reparation Commission, any member who has participated in the vote may appeal from the decision to an Arbitral Commission composed of three impartial and independent persons whose decision is final.

(9) The proposals of the Dawes Report are based on the condition that the fiscal and economic unity of German territory are as defined by the Treaty of Versailles. This condition the French and Belgian Governments had fulfilled by October 28,

1924, though by the London Agreement the handing over of the railways operated by the Franco-Belgian *régie* to the new German Railway Company need not be fully completed before December 7, 1924.

II

What are the problems which confront Germany and the rest of the world as a result of the adoption of the experts' proposals?

The essence of the matter is contained in three questions:

(1) How is Germany to raise the revenue necessary for placing the allotted sums in marks to the credit of the Agent for Reparations at the Reichsbank?

(2) How far and by what means will it be possible to transfer the revenue raised inside Germany on Reparation account to foreign countries?

(3) How are the Allied countries going to absorb such payments as are, in fact, made across Germany's borders?

There is, then, firstly, the problem of the Budget surplus; secondly, the problem of the export surplus, and thirdly, the problem of the import surplus[1]:—

(1) *The Budget Surplus.*

The following table shows the way in which the Experts' Report proposes that the annual sums shall be raised[1]:—

	From the Budget. (£ gold.)	From the Railways. Interest on Railway Bonds. (£ gold.)	From the Railways. Transport Tax. (£ gold.)	From the Railways. Sale of Preference Shares. (£ gold.)	Interest on Industrial Bonds. (£ gold.)	External Loan. (£ gold.)	Total. (£ gold.)
1st Year (1924–5)	—	10,000,000	—	—	—	40,000,000	50,000,000
2nd Year (1925–6)	—	6,500,000 / 23,250,000	12,500,000	12,500,000	6,250,000	—	61,000,000
3rd Year (1926–7)	5 500 000	27,500,000	14,500,000	—	12,500,000	—	60,000,000
4th Year (1927–8)	25 000 000	33,000,000	14,500,000	—	15,000,000	—	87,500,000
5th Year (1928–9) and following years	62,500,000	33,000,000	14,500,000	—	15,000,000	—	125,000,000

[1] These payments are all in marks, which have for convenience been converted here (as throughout this article) into English pounds at the nominal gold equivalent of 20 marks = £1.

It will be seen that nominally no revenue is to be drawn from the ordinary Budget during the first two years. But in the first year at least it would seem inevitable that a share will have to be contributed by the Budget, because a considerable,

and possibly the major part of the external loan of £40,000,000 will have to be held abroad as a backing for the currency, and will not, therefore, be available for financing the cost of the Armies of Occupation, deliveries in kind, Reparation Recovery Acts, etc. It is the view of some writers, and notably of Mr. Keynes, that the weakest point of the whole plan is the absence of a complete moratorium of all payments during the first two or three years, and that there is a danger that the scheme may break down at its outset. The fact that it will be impossible, owing to the abnormal condition prevailing in 1923, to assess the income tax on a proper basis until 1925 is a special point of weakness in the financial position for 1924–5. In the second year of operation as much as £42,000,000 is to be drawn from the railways alone, and it is assumed that £12,500,000 will be obtained by the sale of railway preference shares to the public. It is impossible to avoid the conclusion that the experts who drew up the railway section of the Report have been extremely optimistic in their forecasts of revenue, which are based on the dual assumption of higher rates for passengers and goods carried and no falling off in the volume of traffic. It is further assumed that in 1925 the railways, including those of the Ruhr, will be working at practically their full normal efficiency. Any deficit in the payments from the railways will have to be met, if at all, out of the Budget or conceivably out of an internal loan. How far the Budget could stand a drain in this interim period is a matter of doubt. The German Government estimated to the Committee of Experts that, provided there was complete fiscal and economic unity, its revenue in 1924–5 would be £263,700,000 and its expenditure, allowing £32,000,000 for payments arising out of the Treaty of Versailles, £285,600,000, or a deficit of £21,900,000. It is impossible to improvise new taxes at a moment's notice, and their effect in producing additional revenue requires time. At the present moment trade conditions in Germany are by no means good, unemployment has been considerable during recent months, and industry and commerce are seriously hampered by the shortage of liquid capital and the scarcity and cost of credit. It must be admitted, therefore, that there is a real risk, though by no means a certainty, that the prescribed payments in marks may not be able to be raised during the first two years without involving either a Budget deficit or an intolerable curtailment of the normal expenditure of the German Government. There is no reason, however, why a partial default in the first two years should necessarily involve the breakdown

of the whole scheme, for it may be decided by the Reparation Commission, or alternatively by the independent Arbitral Commission, that the default was unavoidable and was not due to any *mala fides* on the part of Germany.

The third and fourth years of the plan are termed in the Report the "Transition Period." In the third year the liabilities of Germany remain at £60,000,000, while in the fourth year they rise to £87,500,000, but each of these totals is subject to a contingent addition or reduction of £12,500,000 according as the aggregate controlled revenues (customs, alcohol, etc.) exceed or fall short of £50,000,000 in 1926–7 or £62,500,000 in 1928. In 1926–7 the Budget, apart from the Transport Tax, contributes £5,500,000, and in 1927–8 £25,000,000. The increase in total liabilities in these two years is clearly not very drastic as compared with those for the first two years.

Finally, in the fifth or "normal" year (1928–9) there is a big increase up to the mark equivalent of £125,000,000 gold per annum, which is not quite 50 per cent. of the estimated Budget revenues for 1924. In the "normal" years the railways pay £47,500,000, industry £15,000,000 and the Budget £65,000,000. In considering Germany's capacity to raise this sum in marks it must be remembered that the whole of Germany's pre-war and war debt has been wiped out by inflation.[1] (For purposes of comparison, the payment for interest and sinking fund on the British debt amounts to about £300,000,000, which is more than the whole estimated German Budget for 1924.) The fact, however, that the German payments, whether held in Germany or used to finance deliveries abroad, are essentially foreign liabilities and as such not liable to German taxation, is of importance. Whether a debt is internal or external has, of course, a considerable bearing on the taxable capacity of a country. Moreover, the payments from industry and the railways represent a subtraction of sums which would otherwise be available for the German Budget. On the other hand, the railways, which play so great a rôle in the scheme, have shown large deficits during the post-war years, and their revenues have only just balanced their expenditure during the first half of 1924, so that there has

[1] It is a strange irony that the ill-conceived and fundamentally unsound reparations policy of the French should, by its incidental effect in bringing about the collapse of the mark, have done more than other methods could have accomplished to make the payment of reparations financially possible. With the war debt at its full value it is almost inconceivable that additional levies amounting to £125,000,000 could have been imposed on Germany, as the tax burden in that case would have become quite intolerable.

been no question hitherto of the Budget receiving any net income from the railways. When all allowances have been made and account taken of the possibility that the Budget may have to be drawn on to supplement the possibly unduly high quota of the railways, it does not appear on the face of it unreasonable to expect that (assuming it to be possible to weather the first few years of the plan) annual sums amounting to £125,000,000 could be raised subsequently by Germany, in addition to her normal and necessary State expenditure. The German tax system was notoriously inadequate during the war, and such as it was it broke down almost completely during the inflation period. Now with stable currency conditions, and under the strong and, up to a point, the salutary pressure imposed by the Dawes Scheme, it should be possible to effect a thorough-going reform and reconstruction of German finances. In the past the burden of taxation has been very inequitably distributed in Germany. The income tax, in particular, has fallen almost entirely on the salaried and wage-earning classes, while, on the other hand, relatively little revenue has been obtained from the great "luxury" articles—beer, tobacco and alcohol, from which alone in England, with a somewhat similar *per capita* consumption, an annual revenue of more than £200,000,000 is derived. There is no inherent necessity for the wage-earning classes and the bulk of the population to be reduced to a state of misery and abject poverty merely as a result of the financial burdens under the Dawes Scheme. In view of the great productivity and elasticity of a properly devised system of direct taxation combined with heavy rates on a few articles of wide consumption, five years should not prove too short a period in which to carry out the necessary reforms required to give effect to the proposals of the Report, so far as internal payments are concerned. That there is only a partial moratorium during this period is an unfavourable factor but not necessarily a decisive one.

How far the necessary psychological conditions exist to enable thorough-going measures of tax reform to be taken is indeed uncertain. It remains also to be seen whether the system of controls functions efficiently and without friction. A regrettable, though under the circumstances perhaps an unavoidable, feature of the Report is the Index of Prosperity, which, though likely to remain only on paper, is calculated by the mere threat of its existence to weaken the incentive of the German people to promote industrial progress and create a surplus out of which reparation payments might be made.

(2) *The Export Surplus*

The costs of the Armies of Occupation and of the various Commissions set up under the London Agreement are a burden solely on the internal finances of Germany, while the financing of payments in kind is also a mark operation and does not involve any purchase of foreign currencies. It is impossible at present to say how large these internal liabilities in marks will be, as their total depends on the programmes to be drawn up by the Reparation Commission in agreement with the Transfer Committee. The Experts' Report assumes that from £50,000,000 to £60,000,000 (the sums due in the first two years) will be spent almost entirely inside Germany. In a normal year, then, a sum of from £60,000,000 to £65,000,000 (making up £125,000,000 in all) will be the probable maximum [1] requiring to be transferred abroad in cash, unless indeed the costs of the Armies of Occupation, amounting to £18,000,000 in 1924, are considerably reduced. How far can such a transfer be regarded as coming within reasonable bounds of possibility, in view of the large slice already taken out of the export surplus by the payments in kind?

The argument from pre-war conditions is here an unsafe one. Messrs. Moulton and McGuire, for example, in their book on *Germany's Capacity to Pay*, have estimated that the average *annual* surplus of Germany's total exports above her necessary imports available for foreign investment amounted for the twenty years preceding 1914 to £20,000,000. It is possible that for the last year or two before the war the foreign investments may have reached as high a figure as £40,000,000 to £50,000,000. It is easy to go on from this to the next stage and to point out that these figures relate to pre-war Germany in pre-war Europe. Germany's territories were then intact, her mercantile fleet and commercial organisation in a high state of efficiency, and her commerce with the Russian and Austro-Hungarian Empires a vital factor in her international trade. Conditions in all these respects have since altered much for the worse. Further, the great shortage of liquid capital in Germany and the inelasticity of the provisions under the London Agreement for the issue of

[1] This assumes that the Experts are right in their estimate that, including costs of the Armies of Occupation, Reparation Recovery Acts and payments in kind, as much as £60,000,000 can be spent inside Germany. The chief payment in kind is necessarily coal, and the inducement to France to accept delivery of coal is lessened by the fact that she must now pay the full economic price for German reparation coal, while if she takes large quantities of coal it will be her Allies who will get most of the cash.

currency and the holding of reserves by the Reichsbank constitute an important additional hindrance to trade and industry.[1] From these undeniable facts the conclusion is drawn *a fortiori* that a larger export surplus than pre-war is unthinkable. But this reasoning is fallacious, and the real conclusion to be drawn is a different one, viz. that the *total* productive capacity of Germany is reduced by the above conditions, though some account must also be taken of the increase of capital equipment of German industry since the war. The arguments of Messrs. Moulton and McGuire ignore the essential fact that £125,000,000 will have to be raised annually by taxation inside Germany, which alters the whole situation. The purchasing power of the German people both for their own products and for imports will be reduced *pro tanto*, with the result that the labour and capital previously devoted to satisfying this part of their needs will be set free to work for the export trade, which indeed will be the only market then available. The exporters will be remunerated, not as hitherto out of the proceeds of the sales of imports, but out of taxation levied in Germany. The export surplus could also be increased by the imposition of heavy import duties on luxuries and on foreign manufactures in general. But the course of the negotiations in progress between Germany and England and France for the conclusion of commercial treaties shows that this is precisely what the latter countries are concerned to prevent. They want Germany as a large import market, though at the same time they want reparations in cash—two mutually incompatible aims under present conditions. If the German exchange were allowed to depreciate as a result of pressure on the exchange market owing to the purchase of foreign currencies, a disparity would be created between the internal and external purchasing power of the mark which would act both as a check on imports and a stimulus to exports. But the whole Dawes Scheme is based on the assumption that the exchange shall be maintained at parity with gold, and therefore the transfer of funds over Germany's borders must be limited to the real export surplus available at any time.

[1] In the definitive constitution of the new Reichsbank the recommendations of the Dawes Report are modified in one important respect. The scheme provided for a reserve of 33⅓ per cent. against its note issue and 12 per cent. against its deposits to be held *either* in the form of gold *or* of foreign demand deposits. The Reichsbank is now required to keep a total reserve of 40 per cent. against its note issue only, of which ¾ *must* be gold. In consequence of this regrettable change Germany is now importing gold from America, thus retarding her recovery and her power of paying reparations.

What has been said above shows that the possible export surplus is certainly greater, relatively, than any pre-war criterion would indicate, because such a criterion takes no account of the fact that the internal purchasing power of the German people will in future be diminished by £125,000,000. How much can be remitted abroad will depend, partly upon the success with which capital and labour in Germany can be transferred to export industries, partly upon the elasticity of the world's demand for the products of these industries, and partly upon the margin of productive capacity available for meeting the needs of the German people and for maintaining health and efficiency. It should be noted that the payments in kind (principally coal) constitute a part of Germany's export surplus indistinguishable from the rest. But the forced exportation, in particular of coal, by reducing the productive capacity of Germany as a whole, is highly injurious to the prospects of obtaining large reparation payments, and is thus specially detrimental to the interests of England. Any attempt to estimate how great the surplus will be is impracticable owing to the lack of data on which to base such an estimate. It may, however, be hazarded that the sum laid down of £125,000,000 is well outside any reasonable likelihood. The actual surplus realised may turn out to be much less than the amount which would be theoretically possible. A possible flaw in the Dawes plan lies in the fact that the Reichsbank, through its control of the discount rate and by its general lending policy, can to a large extent determine the level of prices in Germany and thereby the level of the exchanges. The Allied control over this policy is not very direct and may in practice prove ineffectual. Hence the rigid (and necessary) insistence in the Report on the need for maintaining a stable exchange, as a condition of any operations on the part of the Transfer Committee, may necessitate the confining of reparation payments almost if not entirely to meeting mark liabilities inside Germany, with the result that no payments in cash can be made.

An interesting calculation is forthcoming if we make the arbitrary assumption that, from the "normal" year 1928–9 onwards, it is possible to expend for reparation purposes the sum of £75,000,000 out of the £125,000,000 to be raised annually in marks. Of this sum, say, £60,000,000 would be spent on internal charges, including payment in kind, and £15,000,000 paid in cash, leaving a total of £50,000,000 unspent each year. By the end of five years then, or not later than 1934, a sum of £250,000,000 would have accumulated to the credit of the Allies

inside Germany.[1] At that moment, under the scheme the annual liabilities of Germany must be reduced to £75,000,000 and kept at that figure unless and until the export surplus of Germany subsequently increases. The annual balance of £50,000,000 would now be available either for the remission of taxation or for other purposes. In particular it could be used for solving what is at present one of Germany's knottiest and most fiercely contested problems—that of "*Aufwertung*"—*i. e.* the resumption of interest payments on a part of the pre-inflation public debt which has a nominal value of £3,000 to £4,000 millions. It must be repeated that the above calculation is purely arbitrary and hypothetical. At the same time it is by no means certain that even as much as £75,000,000 could, in fact, be used for actual reparation payments without endangering the stability of the mark. It is possible that the "satiation point" may be reached within less than ten years of the present date. It should be noted that by Annex VI of the Dawes Report, the Transfer Committee is empowered "to suspend accumulation before reaching five milliard gold marks, if two-thirds of its members are of the opinion that such accumulation is a menace to the fiscal or economic situation in Germany or to the interests of the creditor countries." The importance and significance of the provisions relating to the accumulation of marks on Allied account in Germany have been insufficiently appreciated by German critics of the Dawes Plan.

(3) *The Import Surplus*

Any export surplus on Germany's side necessarily involves an import surplus on the side of the receiving countries, *i. e.* goods are received which would otherwise either not have come at all or which would have had to be paid for by exports. All that part of Germany's payments which is spent inside Germany, *e. g.* in maintaining the Armies of Occupation or in paying the costs of Commissions, etc., set up under the scheme, clearly does not affect this side of the question. On the other hand, payments in kind and in cash resulting from the export of goods and services involve the receipt of imports without any corresponding payment of exports. In the long run, regarded purely from an economic standpoint, this is clearly advantageous to the inhabitants of

[1] In actual fact it is probable that part of the money collected in Germany during the first four years of operation of the scheme will be in excess of what can be remitted abroad, with the result that accumulation will begin at an earlier date than that suggested above.

the countries receiving the goods, whose real incomes are increased by precisely the amount of reparations obtained. Although some of the export industries will suffer from the diminution of their foreign markets, the growth of the total income, which will be expressed either by a lowering of taxation or the increased spending power of the Governments, will increase the demand of the home markets. Thus the displaced capital and labour in the export industries will turn to the production of goods for internal consumption. During the interim period, before the readjustment of resources has been carried through, there will be a state of depression and some unemployment in the export industries chiefly affected. But the process of reorganisation should be facilitated to an important degree by the accompanying prosperity of industries working for the home market, as a result of the growth of total purchasing power. Even the export industries are likely to be less affected than is often believed, for world trade has not yet recovered its pre-war dimensions and British capital exports in particular are considerably less than they were formerly. By no means all German exports compete directly with British exports, and with a reasonable revival in international trade after the prolonged post-war depression, there is no reason to assume that exports of British goods should necessarily be contracted in proportion to the expansion of German exports.

A consideration of some importance for England is the fact that she is only entitled to 22 per cent. of the total reparation payments. As a great exporting country she will be affected more seriously than France, which will be able to receive the payments made in kind by Germany and re-sell them in British markets. The fear of the British miners of the effects of the sale of German reparation coal on their wages and employment would appear to have some justification, so long, at least, as world trade and industry does not greatly revive. The disturbing effects of such payments in kind, and of reparations in general, on British industries would in the long run be counteracted if France were to make equivalent payments to England for the service of her external debt.

An interesting question is raised by the problem of what will happen when reparation payments finally cease. The suddenness of the change is likely to be diminished by the provision in the Dawes Scheme for the capitalisation of some of the annual payments. It is evident that the cessation of the receipt of reparations will compel the receiving countries to increase their

exports if they wish to continue to obtain goods previously imported on reparation account. But the change-over will be rendered gradual by German repayments of capital sums borrowed from citizens of Allied countries during the reparation period when capital will be scarce in Germany and rates of interest high, and when the opportunities for investment will be attractive to foreign lenders. These repayments Germany will be in a position to make when the reparation liabilities have come to an end.

III

It is difficult to state more than very tentative conclusions as to the operation of the London Agreement and its economic consequences for Germany and the Allied countries. So far as the internal finances of Germany are concerned, the most critical period will be the next two or three years, when large sums have to be raised, before the financial reconstruction of the country after the debauch of inflation can possibly be carried out. Here much will depend upon the wisdom and elasticity of the policy pursued by the different Allied control bodies. If the Dawes Scheme survives the initial period, *and if the German people will allow themselves to be taxed to the necessary degree to pay a foreign tribute for an indefinite period*, it should prove possible for the annual sums contemplated in the scheme to be raised in marks out of the Budget and other sources of income.

The chief financial interest of the Allies, however, lies not in obtaining vast quantities of marks in Germany, but in getting cash or its equivalent in their own countries in one form or another. The view has been expressed above that the transfer of substantial quantities of wealth from Germany to the Allied countries is, it is true, theoretically possible, but it would be very rash to assume that any large sums will actually be forthcoming in cash over and above what can be delivered in the form of payments in kind. In fact, if the programmes of deliveries in kind are not very carefully handled they may render impossible any further export surplus. In practice, the constitution of the Transfer Committee, with its responsibility for buying foreign currencies only to an extent compatible with the stability of the exchange, is likely to prove the supreme safety-valve of the whole scheme.

Lastly, the fears that world markets will be flooded shortly with cheap German goods as a result of reparations are seen to be greatly exaggerated. There will undoubtedly be a growth of German competition in foreign markets, but there is still a

long way to go even now before German exports reach their pre-war level. One of the evil effects of war is to shut out foreign competition while it lasts and to cause an unwholesome dread of its return when war is over. The revival of trade should make German competition endurable, while, on the other hand, any disturbing effects of the expansion of German exports will in the long run be more than counter-balanced, so far as the Allies as a whole are concerned, by the direct economic benefit due to the receipt of reparations. If the view expressed above is correct, that the annual payments on reparation account are not likely to exceed modest dimensions, then the extent of this benefit will not be great when it is spread over all the Allies. At the same time the mere fact of the establishment of reparation payments on a definite basis must sooner or later raise the great issue of Inter-Allied debts. It is by no means impossible that in time the immense political advantages of a general cancellation of Inter-State indebtedness resulting from the war of 1914–18 may come to be recognised and accepted by all the countries concerned.

C. W. Guillebaud

THE MONETARY STANDARDS OF NEW ZEALAND AND AUSTRALIA

I. *Monetary Standards*

An essential preliminary to any profitable discussion of present monetary conditions is the frank admission that the Gold Standard, as a means of providing for the automatic regulation of the world's prices and exchanges by movements of gold, is now in active operation nowhere. The achievement within the past year or two of a considerable measure of price and exchange stability is due, not to the gold standard, but rather to the cessation of inflationary finance, and to the increased attention given to the exchanges as indicators for monetary regulation to follow. Before the war, when currencies were kept convertible with a common medium, gold, it followed of necessity that they were also kept convertible with one another at rates fixed within narrow limits; since the war, when currencies are no longer convertible into gold, it is being more fully realised that they can maintain this desired convertibility with one another without the intervention of the common gold medium, and simply by the adoption of some form of exchange standard. Any country whose monetary regulation is centred on the maintenance of an approximately fixed exchange rate may be said to possess an exchange standard; but this standard exists in its most perfect form where monetary regulation is made to depend on reserves held, not in the home country, but overseas, and where both the home money supply and the overseas exchange reserve expand and contract automatically to the extent of the net balance of payments made through the exchanges.

The Gold Exchange Standard, where it operates chiefly through regulation of currency, as in India, has been fully discussed;[1] but where similar systems are operated by overseas banks, which, by the use of credit instruments, link together the monetary conditions of different countries, little beyond slight passing references is to be found in current economic literature. Yet the existence of what might be termed "Credit"

[1] Cf. Keynes, *Indian Currency and Finance*; Jevons, *Future of Exchange and Indian Currency*, etc.

Exchange Standards is widely, if somewhat vaguely, recognised. With the great extension of deposit and overseas branch banking that is taking place, and with the attempts to stabilise paper currencies by means of foreign balances held to support exchange, such standards are becoming of increasing importance, and, if effect is ever given to the recommendations of the Genoa Conference, they are destined to become more important still, both in practice and in theory.

At the present time this "Credit" Exchange Standard is probably most completely developed in New Zealand. There too, owing to the comparative simplicity of the trade and banking relations with Great Britain, the details of its working can be easily examined. It exists in Australia, but, owing to more complex economic relations, is there developed less perfectly. The vexed question of the currencies and exchanges of these Dominions can be explained, however, only in terms of such standards. It is the purpose of this paper to offer that explanation, to illustrate it from New Zealand commercial practice and statistics, and to apply it to the present difficulties of Australia.

The usually accepted pre-war theories of monetary regulation fail entirely to fit the facts in New Zealand. Such theories may be represented as the views of two leading schools, which differ in emphasis rather than conflict in principle. The narrowly orthodox pre-war view regarded the amount of a country's gold as the final determinant of its price level. Since legal regulation enforces the maintenance of a constant relation between notes and gold, and bankers maintain a similarly constant relation between their credit liabilities and reserves of notes and gold, the total amount of monetary media of all kinds, and therefore the price level, which varies directly with the amount of money, can move up or down only with an inflow or outflow of gold. Such gold movements are occasioned by and provide automatic correctives for variations in the balance of international indebtedness. The free flow of gold tends to achieve such a distribution of that metal as will preserve everywhere a uniform level of prices measured in gold (with allowances for transport, etc.), and to keep the exchange rates stable within the narrow limits of the gold points. A less orthodox view, perhaps more closely in touch with facts, holds that, though movements to and from gold reserves do have these effects on prices, yet in practice gold moves but little, and further, that the assumed constancy of the proportion between bankers' credit and their reserves does not accord with fact. For in

practice bankers regularly expand and contract their advances, which govern the public's deposits, with the rise and fall of confidence in the business world. Moreover, the proportion of the total available cash and credit of a country which is in active circulation, compared with that part held in reserves and therefore out of circulation, varies also with changing business psychology. Hence, even on the basis of unvarying gold reserves, the total of active monetary units in circulation may vary considerably, and this variation will be reflected by similar variations in prices. The former view, practically ignoring the trade cycle in this connection, regards freedom of gold movement as the essential factor in regulating the standard of value; the latter, with the trade cycle uppermost in its mind, contends that free gold movement, when it occurs at all, comes too late to effect its corrective purpose satisfactorily, and that some form of credit control is therefore essential if variations in the amount of circulating means of payment, and consequently in prices, are to be lessened. One school of theorists, regarding the gold reserves as the strategic centre of our monetary systems, would achieve stability of foreign exchange and risk fluctuations of internal prices; the other, holding that bankers' advances are the dominant influence in monetary regulation, and cash largely subsidiary to credit, would check incipient tendencies to expansion or contraction, and would aim at internal price stability though it risked variations in exchange rates.

Both these views have certain fundamental postulates in common. They assume that note issues are necessarily largely governed by gold reserves, and that credit expansion is governed by bank advances, and limited by the bankers' need to keep safe reserves against liabilities. They relate rather to pre-war than to post-war conditions; they have been built up largely from data collected in the leading financial countries; and they implicitly assume the independent and mainly self-contained money and banking systems of those countries. Unfortunately, the principles deduced from the study of such systems are commonly considered applicable to countries such as New Zealand and Australia, whose money and banking systems are neither independent nor self-contained. The banks of these countries do not confine their operations to domestic business; on the contrary, they are engaged largely in financing external trade, and for this purpose maintain branches and large reserves abroad. The effects on domestic monetary regulation of such external banking business may in some cases be negligible; in the case

of New Zealand, and to a less degree of Australia, they are always of fundamental importance.

II. *The New Zealand System*

In New Zealand, therefore, many of the assumptions of ordinary theory cannot be maintained. Note issues are not governed by gold reserves; deposits are not controlled by advances. Trade and banking statistics show that bankers habitually maintain gold reserves sufficiently large to free them from limitations of legal restriction; the movements of specie depend on the bankers' needs for coin [1] rather than on the exchange rates, the variations of which are almost negligible; and further, the totals of bank deposits vary greatly quite independently of changes in advances, securities, etc. Significant figures for money and banking in this connection may be summarised as follows:

TABLE I.

Returns of all Banks of Issue in New Zealand.[2]

Averages for June Quarters.

(£ millions.)

Year.	Deposits.	Advances and Discounts.	Govern-ment Securities.	Gold Coin and Bullion.	Notes Issued.
1914	28·95	23·94	0·93	5·50	1·70
1918	50·10	32·80	5·66	8·09	6·15
1920	62·97	34·79	6·36	7·74	7·93
1921	53·70	54·38	5·87	7·68	7·85
1923	52·10	41·71	5·03	7·90	6·74

The year 1914 gives a fair sample of the nature of pre-war returns. Until 1916 the law regulating bank-notes imposed the condition that "notes issued shall not exceed the total amount of coin, bullion and public securities . . . nor shall the amount of coin be less than one-third." The effective restriction might have been the necessity to keep one-third of the note issue in coin, but the banks elected to keep treble their note issue in gold. From 1916 this last restriction has been suspended, and though no advantage was taken of the suspension, banks might issue notes to an amount limited only by the total of coin, bullion and public securities held. Since no limitation

[1] There is no Mint in New Zealand, hence all coin is imported.

[2] Figures from official Returns published in *New Zealand Gazette*.

was placed on the amount or proportion of securities, this was equivalent to perfect freedom of bank-note issue. Further, gold redemption has been suspended since 1914, and the notes are legal tender. Actually the note issue has never been much more than half the total holdings of gold reserve and securities combined. Between 1914 and 1918 £2¼ m. (estimated) of notes replaced gold withdrawn from circulation, but from 1918 the above table shows no apparent relation between movements of notes and gold. The bankers explain that notes are issued in accordance with the needs of trade; further explanation than this can be found only by concluding that the requirements for cash circulation vary with the total amount of monetary media available, and if currency is not the controlling factor, then credit must be. This conclusion directs attention to deposits, but if a self-contained banking system be assumed, the movements of the above deposit figures are inexplicable.

From 1914 to 1918 advances increased by £9 m., and securities by £5 m. Of this amount £2 m. was absorbed in the net increase in notes (£4¼ m. less £2¼ m. issued to replace gold withdrawn), leaving £12 m. to be shown in increased deposits. But deposits increased by more than £21 m. From 1918 to 1920 the excess of the increase in deposits and notes over the increase in advances and securities was £12 m. The next year a marked change occurred. Notes remained roughly unchanged, there was a net increase of £19 m. in advances and securities, which might have been expected to appear in deposits, but deposits decreased by £9 m. £28 m. in all disappeared from depositors' credits. A recovery occurred in the period 1921–23; advances and securities decreased by £13½ m., deposits and notes by £2½ m.; £11 m. in all reappeared to the credit of depositors.

Such apparently anomalous movements call for explanation, and the explanation, once found, is illuminating. Variations in the amounts of funds held by banks in New Zealand are balanced by changes in funds held outside the country, and both are dependent on the net balance of external payments. The figures given above are from the official returns, but relate only to the business within New Zealand of the six banks of issue. Two of these are New Zealand banks, having branches in Australia and London; four are Australian banks, having branches in New Zealand and London. Hence there is much business done by all the banks which is not included in the official returns. The greatest part of this external business arises out of the financing of external trade. Through these six banks almost all

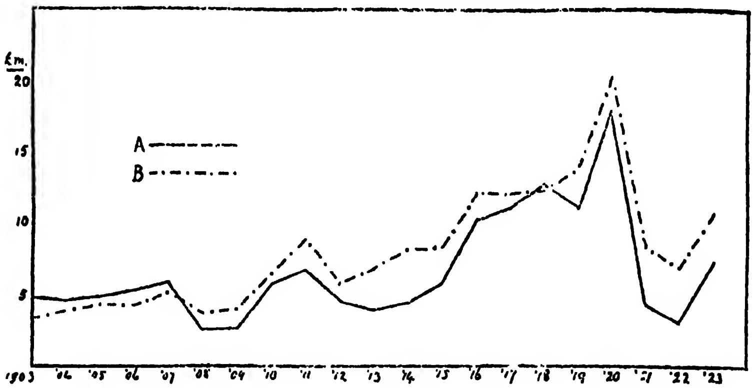
the foreign exchange dealings are negotiated. Payments arising out of indebtedness to or from Australia accounts for from 5 to 10 per cent. of the total exchange transactions, the remaining 90 to 95 per cent. are with or through London. But New Zealand may deal directly with London through Australia with London, or through London with Australia; Australia similarly may deal directly with London, through New Zealand with London, or through London with New Zealand, the plan adopted depending on the state of funds in the various centres. Since New Zealand's business with London completely overshadows that with Australia, the latter is neglected in the following account of the method adopted. This method, in any case, is the same for either country, and the omission therefore makes no difference to the validity of the reasoning.

Payments from New Zealand on international account are made by buying bank drafts or by meeting bills at the banks in New Zealand. In either case debtors discharge their debts mainly by cheques on their bank accounts. Their deposits in New Zealand are thus diminished. But the bankers who transfer the funds merely pay out in London from exchange reserves held there. The payments made for all New Zealand imports thus deplete bank deposits (independent of advances) in New Zealand, and deplete to an equal extent the bank reserves held in London. On the other hand, payments to New Zealand on international account are made in London, where debtors again either buy bank drafts or meet their bills. In either case funds are paid into the exchange reserves of the London branches of New Zealand banks, and the banks transfer these funds to the creditors in New Zealand simply by crediting the amounts to their deposit accounts. Thus all payments for New Zealand exports, visible and invisible, bring increases in bank reserves held overseas for exchange purposes, and subsequent corresponding increases in deposits (independent of advances) in New Zealand, while all payments for New Zealand imports, visible and invisible, similarly diminish to an equal extent both bank deposits in New Zealand and bank reserves held overseas. It follows that the excess of deposits over advances in New Zealand (note circulation, etc., remaining the same) must vary directly with bank reserves held for exchange purposes overseas, and the extent of the variations of both is determined by the net balance of international payments.

The evidence required for an absolute statistical demonstration of this system is here, as in most similar inquiries, incomplete. But the data available lend further convincing

support to the conclusion suggested by the above description of banking practice. The published records consist of the quarterly banking returns, which relate only to business within New Zealand, and the banks' annual balance sheets, which summarise figures under their various headings regardless of geographical distribution of the items. In the case of the four Australian banks operating in New Zealand it is impossible from the balance sheets to separate satisfactorily the figures for New Zealand, Australian and British business. Hence no estimate can be made at any time of the total amount of the exchange reserves held on New Zealand account by the branch banks in London. But all the six banks pursue the common policy of

GRAPH I. Bank of New Zealand Returns.



A = Bank of New Zealand, excess of deposits over advances in New Zealand.
B = Bank of New Zealand, short call money, etc., in London.

the Associated Banks, and of these the Bank of New Zealand is, as far as local business is concerned, by far the most important. It is regarded in many respects as the Central Bank of the country, and its local business is approximately equal to that of all the other banks combined. This bank's balance sheet shows annually, at March 31st, the total of its short call money, securities, and bills receivable in London, usually known as its London balance, which is really the greater part of its exchange reserve. Under the exchange system here described this balance might be expected to vary directly with the excess of the bank's deposits over advances in New Zealand. How far these series do move together may be judged from the graph I.[1]

Perfect correspondence of movement between these two series cannot be expected, as the London totals are for March 31st,

[1] For detailed figures see Appendix, Table III.

while the New Zealand returns are the averages of the quarter ended March 31st. In addition funds in London vary on account of Australian and London as well as of New Zealand business; and London cash and deposits with bankers, which also varies, is not shown. Therefore only a general indication of changes in the exchange reserves can be given by movements of short loan money. Yet the coefficient of correlation (Pearson's) for the figures represented by these curves over a period of twenty years is + ·914, and the probable error ·028.

But it is desirable to go further than this, and to show correlation between:

(*a*) The total of exchange reserves held overseas on New Zealand account;

(*b*) The total deposits less advances in New Zealand; and

(*c*) The balance of international payments on New Zealand account.

The impossibility of exactly determining (*a*) has already been explained, but for the Bank of New Zealand, which does about half the total business, Graph I shows that (*a*) and (*b*) move very closely together. No attempt can be made, in the absence of adequate data regarding invisible trade items, to measure (*c*) with absolute accuracy, but the visible trade items may be used as an indication of the movement of this series. Graph II [1] compares the visible trade balance with the excess of deposits over advances for all banks in New Zealand.

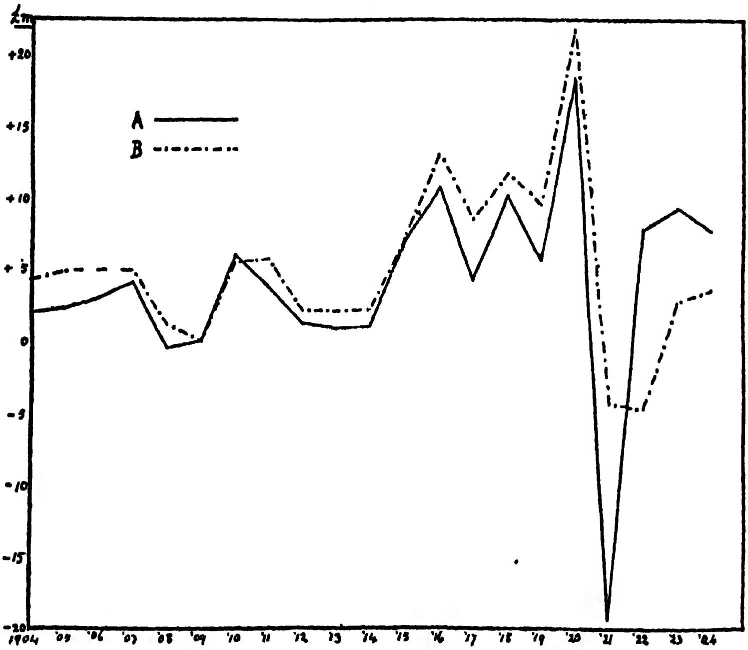
In comparing these series a lag is seen to occur between the time of recording trade figures and the time when payment for trade items influences banking figures. During the war period also much produce was bought and held in store in New Zealand by the Imperial Government. This was paid for and therefore appeared in bank returns immediately, but it was not shipped at once, and in consequence was not recorded in trade returns till later. In addition the effects of the omission of invisible items must be allowed for. Normally exports should exceed imports by at least the amount due overseas in payment of interest on public and private debts, but this excess may be less, or even be negative, in years of fresh borrowing. In spite of these and other causes of divergence, a considerable degree of correspondence is indicated between movements of the two series, the coefficient of correlation (Pearson's) over a period of twenty years being + ·760, and the probable error ·06.

The only possible conclusion to be drawn from the facts

[1] For detailed figures see Appendix, Table III.

here presented is that New Zealand's monetary system is automatically regulated through exchange operations; that is, that the country possesses an exchange standard, and this conclusion is further supported by the comparative neglect of other and more deliberate methods of monetary regulation. It has been shown that the legal regulation of note issues is inoperative and that cash is strictly subsidiary to credit. Normally variations in the exchange rate are negligible. Even during the period of

GRAPH II. Banks' Deposits and Trade Balance.



A = Visible trade balance for year ended March 31st.
B = All banks in New Zealand, excess of deposits over advances and securities for quarter ended March 31st.

great instability that followed the war, the cable rate on London varied only between ¼ and 3 per cent. premium, though the total movements of specie were quite insignificant. Between 1903 and 1919 the maximum range of variation for the same rate was 1⅛ per cent., despite marked fluctuations of trade and indebtedness such as the graphs above show to have occurred in 1907 and 1911. Here again the movements of specie were totally inadequate to correct the exchanges. Moreover, despite these cyclical variations no change is shown in the banks' overdraft, discount, or cable exchange rates on London between

1904 and 1912.[1] In fact the ordinary method of credit regulation, by manipulation of the bank rate, is but little used, and no changes of significance in this connection occur in the banks' holdings of securities. On the whole it appears that the bankers' policy in New Zealand is to maintain advances at an approximately constant level; and when advances do happen to show considerable variation, they follow rather than precede similar movements in deposits. This is not to say that advances do not create deposits, for they certainly do. But a marked increase in advances regularly follows an unfavourable trade balance, when, importers' deposits being depleted, the banks continue to meet importers' bills in London, and debit the amounts to the importers' accounts in New Zealand. As recovery occurs, deposits regularly increase and advances diminish again, but, in inducing a contraction of advances, bankers may resort to means of pressure other than manipulation of the overdraft rate. There is, therefore, little, if any, of that regular correspondence in the movement of deposits and advances such as is expected to occur under self-contained banking systems. In general, and excluding seasonal variations, advances remain comparatively steady while deposits vary considerably, changes in the difference between them being caused by, and varying with, the balance of international payments.

III. *Exchange Standards*

Between the gold standard and the exchange standard there lies rather an indeterminate zone of transition than a definite line of demarcation. Systems of monetary regulation vary considerably and shade into one another by gradations that are almost imperceptible. The lack of the definition here renders it somewhat difficult to fit the New Zealand system into any recognised classification. Since 1914 this country has certainly possessed an exchange standard. When gold payments were suspended New Zealand bankers merely continued the practice of pre-war years which linked their monetary system up with that of Great Britain. In consequence their country has enjoyed a remarkable degree of exchange stability amid a world of unparalleled exchange dislocation. Before 1914 New Zealand had a gold circulation and, though there was no Mint and all coin had to be imported, she was free at any time to slip into or across the zone of transition and become partly or wholly a gold standard country, regulating her monetary system by her

[1] For detailed figures see Appendix, Table IV.

gold reserves, and her trade balance by gold movements. Because she was always in a position to take this step if necessary, it was never noticed that she did not take it, and consequently New Zealand was credited with a gold standard whereas in reality she had evolved a system in every way superior for her purpose, the system of an exchange standard, backed by currency largely composed of gold.

The essence of an exchange standard consists of the maintenance of an approximately fixed exchange rate, and the automatic increase or decrease of monetary media within the exchange standard country to the extent of the net balance of its payments through the exchanges. Like every other method of monetary regulation this plan postulates the Quantity Theory, and depends for its effect on influencing the amount of monetary media available. Variations in this amount react upon the volume of business, and through business, upon the trade balance, which in turn exerts the chief control over the exchange rates. Hence there is a marked degree of mutual dependence between the amount of a country's money and its rates of exchange. This mutual dependence is recognised in the theory of purchasing power parity, which states that the exchange rate tends to settle at a point where it registers the relative values, measured in transportable goods, of the monetary units exchanged. The universal validity of this theory, as a general proposition, must be admitted, for normally any departure from the purchasing power parity immediately sets forces moving that tend to correct it. It follows that if conditions are to be imposed which will maintain permanently a stable exchange rate, such conditions must provide for the maintenance of the normal ratio between the values of the monetary units to be exchanged, that is, they must ensure the automatic correction of deviations from that normal ratio. Under free gold standards this correction was provided by the movement of gold, or by the measures taken to prevent gold movement. In either case the effect was achieved by regulating the quantity of money available. Under an exchange standard the effect is attained in the same way. For the necessary correction is ensured by providing that the money of the exchange country shall expand or contract automatically with similar changes in central reserves held overseas, variations in both being governed by the net balance of international payments. A favourable balance, indicating that the value of the dependent monetary unit is higher than that expressed in the ratio registered by the exchange rate, automatically expands the

monetary media by the net amount of the favourable balance, and so tends to lower the value of each unit to that expressed in the normal ratio. On the other hand, an unfavourable balance, indicating a monetary value lower than that registered by the exchange, contracts the monetary supply by the net amount of the unfavourable balance, and, by raising the value of the unit, tends again to restore the ratio.

In these essential features the New Zealand system is similar to that of the Gold Exchange Standard countries. But, taking India as an example of this standard, New Zealand differs in one important particular. India is chiefly a currency-using country, and monetary regulation consists in expanding or contracting currency to the extent of the net balance of international payments. In New Zealand banking is highly developed, and the exchange standard is operated entirely through credit, that is, by the automatic expansion and contraction of bank deposits to the extent of the net balance of international payments. But just as "the stability of the Indian system depends upon their keeping sufficient reserves of coined rupees to enable them at all times to exchange international currency for local currency, and sufficient liquid reserves in sterling to enable them to change back the local currency into international currency, whenever they are required to do so,"[1] so the stability of the New Zealand system depends upon bankers having sufficient liberty of credit expansion in New Zealand to enable them at all times to provide bank deposits in New Zealand in exchange for international money, and sufficient liquid resources in sterling to enable them at all times to provide international money in exchange for bank deposits in New Zealand. Normally both these conditions are maintained. The practical freedom of note issue releases bankers from the operation of the usual check upon credit expansion, and the reserves in London are usually sufficient for all demands likely to be made on them. But if either of these conditions fails to be maintained the system may break down. Thus in 1921, owing to an extraordinary excess of imports, bankers' exchange reserves in London were practically exhausted. The cable transfer rate on London rose to 3 per cent. premium, and exchange was rationed. The fact that rationing was resorted to in preference to a higher exchange rate shows how deeply the approximate par rate has become rooted in the mind of the banking and commercial world. But this movement, the most violent on record, and wider, it is hoped, than any likely

[1] Keynes, *Indian Currency and Finance*, p. 10.

to occur in the future, was hardly sufficient to be termed more than a temporary impairment of the system. The normal working has since been restored and the rate has become slightly favourable. With a practically free note issue a breakdown owing to the failure of the other condition is unlikely to occur in New Zealand.

IV. *The Position in Australia*

But in Australia the note issue is not free, and for that very reason the working of the exchange mechanism has partly broken down. There the monetary situation is at present causing grave concern to bankers and traders alike. A marked monetary stringency has developed in Australia, while the Australian banks have a surplus of funds in London which they are unable satisfactorily to transfer. Consequently exporters are experiencing difficulty and loss in realising in Australia funds paid to them in London. Bankers who normally transfer these funds complain that they cannot do so on account of the shortage of notes, and demand that more notes be issued. The Note Issue Board of the Commonwealth, which controls the issue of notes, holds firmly "that there are at present sufficient notes in circulation, and that any further issues must increase the inflation which they consider already exists and cause a rise in the cost of living. The Board is very firm on this point, for it is understood that it refused the request of four banks to issue notes in exchange for gold, even though the amount involved was not large, and the issue was to be a temporary one." [1] The facts of the monetary situation are illustrated in the following table:

TABLE II

Returns of Cheque-paying Banks in Australia.[2]

(£ millions.)

Quarter ended.	Deposits.	Advances and Securities.	Deposits less Advances, etc.	Australian Notes.	Gold.
June 30, 1914	163	123	40	5	35
,, 1919	249	205	44	36	21
,, 1920	266	198	68	35	21
,, 1921	283	242	41	34	21
,, 1922	289	232	57	30	21
,, 1923	311	255	56	29	21
Dec. 31, 1923	306	269	37	28	21

[1] *Australian Investment Digest*, July 1, 1924, p. 293.

[2] From *Quarterly Summaries of Australian Statistics.*

This table supports the contention that a shortage of currency exists, for it shows a marked disproportion between the changes in bank deposits and in cash reserves since 1914. From June 1914 to December 1923 deposits increased by 88 per cent., whereas notes and gold increased by only 22½ per cent. But since gold no longer circulates the effective reserve against demand liabilities is limited to notes, and on the basis of notes and gold in 1914, and notes alone in 1923, cash reserves have decreased by 30 per cent. Moreover, since 1919 deposits have increased by 23 per cent., while note reserves have decreased by 22 per cent. In Australia, as elsewhere, a fairly constant proportion, dependent on the habits of the public, is maintained between the amounts of cash and credit media in use, and hence a restriction of currency must sooner or later be reflected in a limitation of credit. If it is true that the Note Issue Board refuses to issue further notes even against gold, then, since gold does not circulate, the effective cash reserves of the banks at the end of 1923 were only £28 m., and of this a large proportion, stated to amount to over £20 m., consisted of £1000 notes, which are not issued to the public, but are used only for payments between the banks.[1] This leaves less than £8 m. as the banks' holdings of cash for circulation against £300 m. of deposits, of which more than half are payable on demand. Under such conditions elasticity of credit is manifestly impossible.

It has been shown in the case of New Zealand that stability of the exchange rate depends on the maintenance of two essential conditions, a London reserve sufficient to enable bankers to provide sterling at all times in exchange for domestic deposits, and sufficient liberty of credit expansion to enable bankers at all times to provide domestic deposits in exchange for sterling. Herein lies the crux of the Australian difficulty, for Australia's exchange methods are precisely similar in all respects to those of New Zealand. Like New Zealanders, Australians "transfer" money to or from London through their bankers, who accept cheques or cash in Australia in return for claims on the banks' London reserves, and who receive money in London in exchange for cash or credits, but mostly credits, which they provide in Australia. As in the case of New Zealand, a favourable balance of payments increases both London reserves and the excess of deposits over advances in Australia, while an unfavourable balance has the opposite effect. Reference to the above table will show how changes in the excess of deposits over advances

[1] *Australian Investment Digest*, July 1, 1924, p. 296.

have occurred in recent years, and though the corresponding figures for London reserves are not available, it is well known that they fluctuate considerably, and the explanation of their movements given here is manifestly the correct one. For Australia, as for New Zealand, this exchange system gradually developed during pre-war years. Though gold was produced and coined at three branches of the Royal Mint in Australia, bankers learned that their real reserves against international payments were needed, not in their home country, but in London. When gold payments and gold movements were suspended in 1914, this system of exchange was continued. During many stormy years it maintained a stable rate with London, the centre through which most of the trade is financed. In Australia its theoretical principles remained uninvestigated, unexplained, and unrecognised; but bankers became skilled in the practical details of its working, the trading public became accustomed to its use, and its chief manifestation, the par rate on London, became a rooted tradition in the commercial world. In 1921, when payment for an extraordinary import surplus had to be met, the London reserves became practically exhausted and the smooth working of the system was temporarily impaired. A recovery ensued, but now it has partially failed again. For, owing to shortage of cash reserves, the banks are unable to expand credit sufficiently to provide deposits in Australia in exchange for sterling in London.

Among the many suggested explanations of the exchange situation is one that it is the result of a change in the ratio of the value of the Australian pound to that of the sterling pound. Possibly this is so, but such a change must be essentially connected with monetary regulation in Australia, and this regulation may therefore be regarded as a primary cause. But the theory of purchasing power parity, which states that the exchange rate tends to register the ratio existing between the real values of the currencies concerned, measured in goods exchanged between them, assumes that other conditions, including costs of transferring the goods, remain unchanged. In the case of Australia, two important interferences with the normal ratio must be considered.

First, in 1921 the tariff was raised considerably. Consequently a wider margin is needed between British and Australian prices of Australia's imported goods in order that these goods may pass the tariff barrier. There are normally two ways in which this margin may be widened to the necessary extent.

If the exchange rate be kept stable, and Australian currency and credit be permitted to expand, a favourable balance of exports, due to the check placed on imports, will increase both the banks' London reserves and local deposits. The expansion of credit will tend to raise prices in Australia, and the shortage of imported goods will tend to raise their prices more than the average. Labour and capital would then be transferred from other (and particularly export) industries, where production is checked by the rising costs, to new or old industries where they might produce goods hitherto imported. The price changes would thus tend to encourage imports and to check exports, and in this way to balance the volume of inward and outward trade at a new and lower level, and at the same time to bring about a new and economically less desirable equilibrium in the distribution of labour and capital throughout industry in the country. If, on the other hand, monetary policy were to stabilise prices in Australia and exchange rates were permitted to fluctuate, then a reduction in volume of some imports, with a continuance of the usual volume of exports, would bring about a favourable balance of trade. The effect on the exchange rate would be to make Australian money dear in London, and London money cheap in Australia. Australians would then be paid at a discount for their exports, and the export industries would suffer a check. A corresponding premium would emerge upon imports, which would thus be encouraged. Again, there would be some change over of labour and capital from the export industries to industries producing goods formerly imported, and the balance of trade would be again restored at a new and lower level. The Australian who recently complained that the banks were using their big balances in London to nullify the effects of the tariff, and to attack the protected Australian industries, voiced an economic truth more profound than he knew, and one quite beyond the power of bankers to control.

A second form of interference with the normal ratio has occurred in the recent heavy Australian borrowing in London. Money so raised increases the London reserves of the banks, and is in this way equivalent to a surplus of exports. It can be transferred to Australia only in the form of imports. Before such a transfer can occur the margin between Australian and British prices must be wide enough to induce Australians to make the necessary imports. If a fixed exchange rate is to be maintained, then money in Australia must expand sufficiently to provide this inducement to import; if the Australian price

level is to be kept stable, then the exchange rate must move in favour of Australian importers (and against Australian exporters) till the balance is again restored. For in the long run the payments to and from a country must balance, and whenever they do not balance, forces are set moving to restore their equilibrium. And no devices of banking, note regulation, protection or borrowing can control these forces.

Thus there are very definite limits to the degree of control a country may exercise over its monetary affairs, and Australia has reached these limits. There the monetary and exchange system has evolved under the guidance of demand and under conditions that normally change but little. When changes do occur, such as those changes in the balance of international payments brought about by altered tariffs or extensive public borrowing, then sufficient elasticity must be provided for the system to adjust itself to the altered conditions. This adjustment may be made internally or externally. If the internal monetary control be rigid, the necessary elasticity must be found in fluctuating exchanges; if exchange rates are to be kept constant, then elasticity must be provided within the monetary system itself. No third alternative is possible.

V. *Remedies Proposed*

There are, therefore, broadly two, and only two, alternative policies of monetary regulation open to Australia. Each brings in its train certain concomitants that cannot be escaped. A country may choose to regulate its currency according to its own will; it may inflate, deflate, or stabilise; but it cannot pursue a monetary policy which interferes with the maintenance of the normal ratio of the real value of its monetary unit to that of another country without disturbing the exchange rate between them. On the other hand, it may choose to maintain a stable exchange rate, but in this case it tags its price level on to that of another country, and it cannot permit internal monetary regulation that interferes with the smooth working of the exchange standard system. This is the root cause of the Australian difficulties, that while the banks are trying to maintain an exchange standard, which the public are accustomed to, and expect to be continued, the Note Issue Board, on which the banks depend for their currency, is trying to establish an independent standard, and their policy involves movements in the exchange rate to

which the public object. Between these two methods of control the conflict is fundamental.

Any solution of these difficulties must depend on the alternative chosen. If an independent standard is desired, then the exchange rate must be expected to fluctuate; if a stable exchange rate is preferred, then the conditions essential to the exchange standard must be maintained, and sufficient liberty of credit expansion be given to bankers. Probably no better way could be devised to provide this elasticity of credit, which depends on an elastic currency, than one already suggested in Australia. It is proposed that the Note Issue Board should exercise its right to issue notes in Australia against securities in London. In the event of a favourable balance of payments, the Australian banks in London might then transfer securities to the Board in London, and receive in exchange notes in Australia.[1] The increase in Australian cash reserves thus brought about would enable bankers to provide cash or deposits for exporters in exchange for funds in London. Should the balance of payments turn against Australia, notes might be paid back to the Board there and securities be redeemed in London. In this way varying amounts of Australian currency might be issued against similar variations in the London reserves; the forces that restore the balance of payments might be permitted to work without movements of exchange rates; and all adjustments might be made almost automatically, with a minimum of friction and a maximum of convenience. Further safety and strong public support might be secured by this system if it were made a condition of its adoption that banks must at all times provide exchange on Australia or on London at rates fixed within limits similar to the pre-war gold points, the condition to be suspended only under pressure of extraordinary circumstances such as occurred in 1921. Before the war the banks so managed their business as always to provide gold in exchange for notes and credit at a fixed rate; there is no reason why they should not, and every reason why they should, provide sterling at similar fixed rates to-day.

Similar provision for exchange to be supplied at rates fixed within narrow limits, which would mean the official recognition and adoption of the Exchange Standard, might well be made also in New Zealand, where, on account of the present laxity of note regulation, some such safeguard may be needed. But in both countries there is an urgent need for revision of banking statistics. The present quarterly returns relate only to domestic

[1] *Australian Investment Digest*, July 1, 1924, p. 295.

business. Full information is required monthly, particularly regarding exchange reserves held in London. If this information were made available, the balance of payments on international account, which for these countries is certainly the most valuable of all indicators of economic change, might be accurately judged and provided for. In the absence of this information the most important causes of change in the monetary world must remain veiled in obscurity.

VI. *Appendix of Tables*

TABLE III

Trade and Banking Figures used in Graphs above.[1]

(£ Millions.)

	Graph I.		Graph II.	
	Bank of New Zealand.			
	Short Loan Money, etc., in London at March 31st.	Deposits less Advances in New Zealand, Quarter ended March 31st.	All Banks' Deposits less Advances and Securities in New Zealand, Quarter ended March 31st.	Visible Trade Balance—Exports less Imports. Years ended March 31st.
Year.	(1)	(2)	(3)	(4)
1903	3·5	4·8	—	—
1904	3·9	4·6	4·3	2·0
1905	4·3	5·0	4·9	2·5
1906	4·3	5·4	5·0	3·1
1907	5·2	5·9	5·0	4·2
1908	3·7	2·5	1·2	−0·4
1909	4·0	2·6	·0	0·2
1910	6·5	5·9	5·6	6·1
1911	9·0	6·7	5·8	3·8
1912	5·7	4·7	2·3	1·4
1913	6·9	4·1	2·2	1·1
1914	8·2	4·5	2·7	1·2
1915	8·4	6·0	7·2	7·1
1916	12·2	10·2	13·2	10·8
1917	12·2	11·1	8·6	4·4
1918	12·4	12·7	11·8	10·2
1919	13·8	11·1	9·6	5·8
1920	20·3	18·0	22·0	18·6
1921	8·3	4·4	−4·2	−19·2
1922	7·0	3·1	−4·6	7·8
1923	10·8	7·4	2·7	9·4
1924	—	—	3·6	7·2

[1] Column (1) from Annual Balance Sheets of the Bank of New Zealand. Columns (2), (3) and (4) from official Returns published in the *New Zealand Gazette*.

Table IV

Changes in Overdraft, Discount, and Exchange Rates of Banks in New Zealand, 1904–1923.[1]

Year.	Overdraft Rate.	Discount Rate.	Cable Exchange Rate. New Zealand on London.
	%	%	% Premium.
1904	5	5	7/8
1912	5½	5	7/8
1914	5½	5	5/8 to 1¾
1915	5½	5	1½ to 1¼
1916	5½	5	1½
1917	5½	5½	1¼ to 1
1920	6	5½	1½ to 2½
1921	6½ to 7	6½	3 to 2½
1922	7	6½	1¾ to ¼
1923	6½	6½	¼

[1] Details supplied by the courtesy of the Bank of New Zealand.

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THE INCIDENCE OF COSTS

This discussion starts with the proposition that the incidence of freight rates, taxes, tariff duties, insurance, and all other special items of cost, including wage advances, present the same fundamental problem in many variable forms.[1] It is the belief of the author that there is one general law that contains the answer, though it has to be qualified to suit each phase of the problem. It is also his belief that this law, once understood, will be of practical value to those who are charged with the determination of freight rates, taxes, import duties, wage increases and other new or special charges.

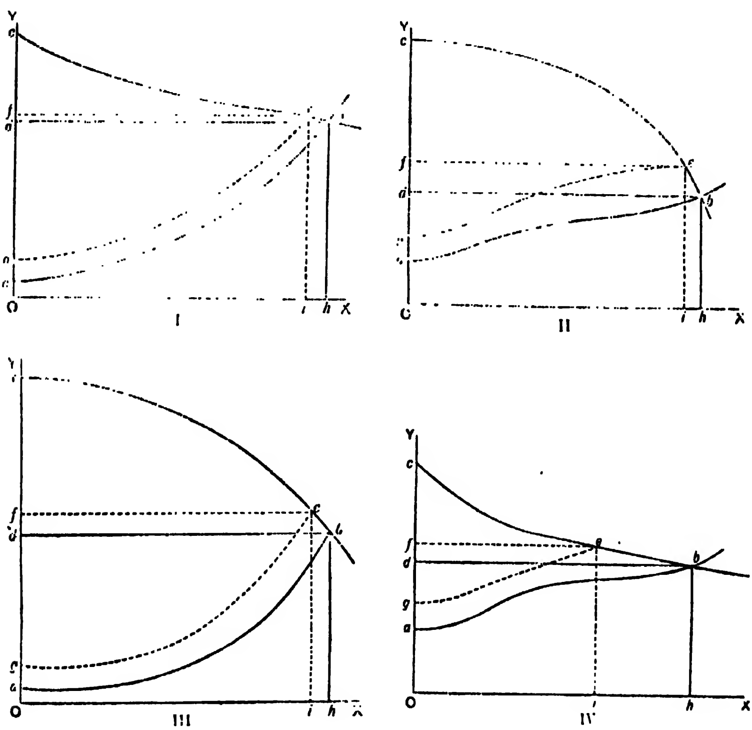
Cost is defined as any expense or disutility incurred in the production of an article, which expense or disutility must be covered by a price in order to induce continued production of the article in question. Stated differently, cost is any expense or disutility incurred in production which would cause production sooner or later to stop unless a price could be secured sufficient to induce continued production. The price necessary to induce continued production is thus an indicator or measure of cost. The price is not the cost. The cost is the thing measured or indicated. The price is the thing that measures or indicates it.

Cost as thus defined usually varies among the different units of any commodity. It would be exceedingly improbable that every unit of any commodity would cost exactly the same. The independent business men who are in a position to determine whether production shall continue on the existing scale, or whether it shall be expanded or curtailed, will probably be guided in part by their experience in producing the current supply. Those whose costs as thus defined are high, will presumably be first to curtail production if the price falls and shows signs of remaining low. Those whose costs are low will stand a considerable fall in price before discontinuing or seriously curtailing production. Any fall in price would presumably induce the marginal producers to curtail production, but not necessarily those who are producing

[1] The ideas embodied in this article are not wholly new. Previous discussions of the incidence of taxes, particularly those of Professor Edgeworth, on the "Pure Theory of Taxation," as well as those of the present writer on the shifting of taxes, have made use of the same method of reasoning. The writer believes, however, that the present article contains a new synthesis.

at a cost which is lower than the marginal cost. Some of the commodity might therefore continue to be produced even though the price were relatively low. Some curtailment would take place unless there was a prospect of quick return to the old price.

The varying costs, as thus understood, of different parts of the supply of a given commodity, are factors which help to determine the supply. This may be represented by the familiar supply curve, samples of which are curves *a b* in Diagrams I,



II, III and IV above. In other words, the term *supply curve* becomes identical with the term *cost curve* as we have defined it, and the two terms may be used interchangeably.

It is assumed that price tends to a normal level or equilibrium under which it induces producers to continue producing as much as it induces consumers to continue consuming. The equilibrium price level is represented by the line *d b* in each of the diagrams, the demand curve being represented by the curve *c e b*.

The supply curves in these four diagrams may seem to show increasing rather than constant or diminishing costs unless care

is taken to explain exactly what they mean. In reality, they are not calculated to represent, nor do they in fact represent, anything as to the economies or lack of economies of large-scale production. They merely represent the fact that, on a given scale of production, some units of the supply are likely to cost more than others, or that it does not require so high a price to induce the continued production of some units of the future supply as is required in the case of some other units. Whether the more costly units are produced in large or small establishments, or whether the cost curve would be higher or lower if production were carried on on a different scale, is not shown in any of these supply curves. The more expensive units are supposed to be near the right end of the curve, and the less expensive units near the left end, regardless of where or by whom they are produced. If, on a given scale of production, some units of the supply cost more than others, a fall in the price to the producer might cause the producers of the more costly units to stop producing, or to curtail their production without stopping or curtailing production by producers that can produce at a lower cost.

If, on a given scale of production, all units of the supply were produced at exactly the same cost—in which case the cost curve would have to be a horizontal line—the supply might be said to be perfectly elastic. That is, a fall in price below the cost of any part of the supply would be below the cost of every part of it. This would eventually cause a complete cessation of production unless the price should again rise above the cost of production. The equilibrium price, in such a case, would be equal to the cost of every part of the supply, and the lines *d b* in each of the diagrams, representing the equilibrium price, would coincide with the line *a b* representing the supply curve.

The fundamental theory covering every special item of cost will be presented first, and some explanations to cover special variations will come later. To avoid cumbersome phraseology, one special form, namely, ocean freight charges, will be chosen as typical of all in the presentation of the fundamental theory. The question may be put thus: Are freight charges paid by the producer, by the consumer, or by both? If by both, in what proportions? The general answer is, that it depends upon the commodity on which the new charge is laid, or, more specifically, upon the ratio of the elasticity of the supply of the commodity to that of the demand for it.

An elastic demand is generally understood as being a demand such that a slight variation in the price will induce a large variation

in the amount purchased, a slight rise in price causing a considerable decrease in the amount purchased, and a slight fall in price causing a considerable increase in the amount purchased. An elastic supply might almost be defined by paraphrasing the definition of an elastic demand, but, somewhat more accurately, by saying that it is one that responds vigorously to slight variations in price, a slight fall in price causing a considerable reduction in the supply, and a slight rise in price causing a considerable increase in the supply. An inelastic demand is, of course, the opposite of an elastic demand, and an inelastic supply the opposite of an elastic supply.

There are many factors that determine the degree of elasticity of both supply and demand, and these will be discussed in some detail later in the article For the present we may represent different degrees of elasticity of both demand and supply, by the four diagrams already referred to on p. 577. Diagram I represents a case where the demand is highly elastic and the supply highly inelastic. The flatness of the demand curve *c e b* indicates that if the price level *d b* were raised slightly it would occasion a considerable falling off in the amount purchased, while the steepness of the supply curve *a b* indicates that the price level *d b* might fall considerably without causing a very great decrease of production. Diagram II represents the case of a commodity whose demand is highly inelastic and whose supply is highly elastic; Diagram III a case where both supply and demand are highly inelastic, while Diagram IV represents a case where both are highly elastic. In somewhat different language it might be said that the degree of inelasticity depends upon the amount of "rent" enjoyed by producers on the one hand and consumers on the other.

In each of the four cases, let us assume that a new item of cost, when the article is delivered on the home market, is added in the form, say, of higher ocean freight rates. This added cost may be assumed to raise the cost curve from the solid curve *a b* to the dotted curve *g e*. This addition to the total cost of each unit of the supply must result, of course, in a new equilibrium price. The old price would not, presumably, induce as large a delivery on the home market, but would induce as large consumption, and the balance of production and consumption or the equilibrium of demand and supply would be destroyed. The balance could be restored by a higher price, but it would have to be only a little higher in the case represented by Diagram I to decrease consumption sufficiently to balance the decreased production. In other words, in a case of this kind most of the

new freight rate would be borne by the producers and only a little by the consumers.

In Case II the opposite result would follow. If the price remained the same as before the new charge was added to the cost of delivery, it would drive large numbers of producers out of business. The demand, however, is so inelastic that most of the new charge could be added to the price without occasioning very much falling off in consumption or in purchasing. The new equilibrium price would be so much higher than the old one as to throw most of the new cost upon the consumers and very little of it on the producers. In other words, the producers could shift most of the new cost on to the consumers.

Case III presents an interesting possibility. The demand is so inelastic that consumers would buy almost as much as before, even though the price were considerably higher. At the same time the supply is so inelastic that the producers would produce almost as much as before even though the price to themselves were much lower. So far as the shifting or the incidence of the burden of the new charge is concerned, it is about an even thing as between producer and consumer. The burden is shared between them. But the case presents an interesting possibility for the taxer, the fixer of ocean freight rates, and others who have it in their power to determine any of these special charges or costs. Here is a good source of revenue. Here is a commodity that will stand a heavy charge and yield large returns in the way of taxes, import duties, freight rates, etc. Charging what the traffic will bear would result in heavy freight charges on such a commodity. No conceivable tax or charge would be prohibitive.

Case IV, however, is of quite the opposite sort. If the price is raised to the consumers, they will stop buying in considerable numbers. If the price is lowered to the producers, they will stop producing in considerable numbers. Anything but the most moderate tax or charge would tend to be prohibitive. A tax on such a commodity would not be very productive of public revenue. A higher freight charge would not yield much income and might even decrease it. In short, any considerable item of new cost would tend to kill such a business.

In view of these results, it is of the greatest importance that those who are charged with the work of fixing freight charges, levying taxes, determining tariff rates, insurance rates, wage rates, etc., etc., should try to understand the principles involved, if they can, and that they should also be able to determine in which of the four classes any commodity with which they are

dealing happens to fall. This cannot be determined without understanding first the factors that determine the elasticity of the demand for a commodity, and second, those that determine the elasticity of the supply of it.

The elasticity of the demand for a commodity is determined by two main factors: first, the elasticity of the desire which it satisfies; and second, the number and availability of substitutes for it. Even if there were no possible substitutes for either, the desire for one commodity might be somewhat more elastic than that for another. The desire for coffins would probably be pretty inelastic if there were no substitutes or alternative methods of burial. The demand for a particular kind of a coffin, however, might be somewhat elastic owing to the fact that there were other kinds to be had, but this involves the possibility of substituting one kind for another. The desire for drugs that are only used as medicine is probably inelastic, as is also that for such condiments as pepper, salt, etc. The desire for articles of consumption that are rigorously prescribed by fashion is perhaps the most inelastic of all, yet in all these cases the difficulty or impossibility of finding substitutes complicates the problem. As a matter of fact, the factor of substitution is so important, and the sheer elasticity of the desire itself is so unimportant, that we may for all practical purposes ignore the latter and give all our attention to the former. In most cases of elastic demand, the elasticity is due mainly, or almost wholly, to the availability of substitutes.

Substitutes are of various kinds. We may divide them, first, into classes—complete substitutes and partial substitutes. Complete substitutes are commodities of the same kind and quality, that satisfy the same desire and satisfy it just as well as the ones for which they are substituted. Objection may be raised to the term complete substitute as thus defined on the ground that it is not a substitute at all but the same commodity. The objection has some validity, but it is within the bounds of reasonableness to speak of Canadian wheat as a complete substitute for home-grown, or for home-grown as a complete substitute for Canadian. At any rate it is clear that the demand for one is highly elastic if an abundance of the other is available. An added freight charge on one and not on the other will make it difficult to force the consumers of the one to bear the cost in the form of a higher price.

The same remark would, of course, apply to a tariff duty on the one with no corresponding increase in the cost of the other. It would be difficult to force the consumers of the one that paid

the duty to pay a higher price for it if the other could be had in sufficient quantities at the old price. Of course much would depend on how much of the other was available or how much it would increase. This applies equally well to any foreign product that pays a duty when there is a home product of virtually the same quality that has been already competing with it on practically equal terms and which may be considerably increased. In such a case the demand for the foreign product is likely to be very elastic. Even if the home product is a complete substitute for the foreign product, if there is only a little of the home product available, of course the price of both the foreign and the home product may increase as a result of the import duty. The possibility of an indefinite increase in the home product involves the question of the elasticity of the supply of it. Here we have a doubly complicated problem in which the elasticity of the supply of the home product is a factor in the elasticity of the demand for the foreign product, but this is only one of the many phases of the "law of substitution."

Partial substitutes are of every kind and degree. Some are almost complete substitutes and some are very indirect. Rye flour, corn-meal, and potatoes approximate closely to complete substitutes for wheat flour. An automobile is an indirect substitute for a piano or a trip abroad. It does not satisfy the same desire, but it satisfies an alternative desire, or it furnishes an alternative avenue for the expenditure of money. Even these indirect substitutes, or alternative forms of consumption, contribute something to the elasticity of the demand for any one of them. In general it may be said that the multiplicity of commodities now offered on the market tends to make every demand somewhat more elastic than it would be if there were fewer things to be had, or fewer opportunities for spending money for things that satisfy desires of various kinds. That being the case, it follows that it is becoming increasingly difficult to shift a special charge or cost, added to the cost of any one of them, on to the consumers. If the new cost is added also to all of the substitutes, it is easier to shift it on to the consumers because they then have no alternative but to leave the desire unsatisfied. The inelasticity of the desire itself is not then compensated by the choice of substitutes. To be sure, the increasing number of opportunities for productive investment and remunerative employment may be tending also to make the supply of every commodity more elastic, in which event there are fewer and fewer cases to which Diagram III applies, and more and more to which Diagram IV applies.

The elasticity of the supply of a commodity is determined mainly by the number and character of the alternatives that are available for the producers if they stop producing it. The supply on a special or limited market is likely to be highly elastic if there are other markets, equally good, that are capable of absorbing the entire supply. If any restriction or special cost is imposed on a product in a local market, the supply on that market will, of course, prove very elastic if the producers can sell on other markets. Here the alternative available for the producer is exceptionally good. The supply on a world market, or on the total market for any commodity, is less elastic than the supply on any part of that market.

When there is no alternative market on which the producer can sell a given product, his best alternative is to produce something else if he is so situated as to do so without considerable loss. If there is no such alternative open to the average producer, the supply is likely to be relatively inelastic. A large part of the wheat crop of the world, for example, is produced on land that is too dry for other crops for which there is a world-wide demand. If the price of wheat falls, the growers of most of it, that is, those that grow it on dry lands, have no other alternative but to stop farming. Only those on the very poorest or driest lands will do so unless the fall in price is considerable. If all the wheat of the world were grown under such conditions, the supply of wheat would be very inelastic. Some of it, however, is grown on moist land that is suitable for many other crops, such, for example, as Indian corn, or grass and beef. If the price of wheat falls to the producer, those that grow wheat in the humid belt can turn to other crops. This fact adds to the elasticity of the supply of wheat.

In attempting to decide in which of the four classes, as represented by the four diagrams on p. 577, a given commodity falls, we must find out what other alternatives are available to the consumers on the one hand, and the producers on the other. If the consumers of a given commodity have many other alternatives due to the availability of large numbers of good or direct substitutes, a special charge or addition to the cost of the commodity in question cannot be easily shifted to the consumers, unless there is a similar addition to the cost of the substitutes. If the charge is added also to the cost of every available substitute, the shifting is easier because then the consumers have fewer alternatives. If the producers of the commodity in question have few other alternatives, either in the form of other markets for

the same product, or of opportunities for the production of other commodities, and if those other alternatives are not so very good, the supply will be inelastic and the producers cannot shift much of the cost. In short, this is the case represented by Diagram I.

If the consumers of the commodity in question have few alternatives, and those not so very good, they will have little power to resist a rise in price, and a large part of the special charge or additional cost can be easily shifted on to them. If at the same time the producers have many and excellent alternatives, they cannot be made to bear much of the extra charge or cost. This is a case represented by Diagram II.

Again, if neither producers nor consumers have any good alternatives the case is represented by Diagram III. It is a case that will make the tax-fixers', the freight rate-makers' and the wage-adjusters' mouths water. A high rate can be charged without greatly repressing the industry that produces the commodity. Finally, if both consumers and producers have many and excellent alternatives, any considerable addition to the cost will tend to be prohibitive. It comes under Diagram IV.

In the case of a wage increase, one of the possible alternatives open to the employer is the substitution of the products of past labour, inventiveness, thrift, and enterprise, in the form of machinery, for some of the present labour whose cost is increased by the wage advance. If the wage increase applies also to the labourers who work in the shops where the machines are made, so that the machines may cost more, the alternatives of the employer is not so good. This, however, is like any other case of substitution. If the increased cost applies to all the substitutes for a given thing, the elasticity of the demand for it is not so great as it is when the increased cost applies to the thing in question and not to the things that may be substituted for it. In short, if the wage advance applies only to the labour that is using a given type of machinery, the employer has the alternative of using more machinery. Even where there is an increase of wages in the shops that make the machinery, there still remains the opportunity of the capitalist to " cash in " on his peculiar function, namely, the co-ordination of labour that is performed at different times. American farmers, for example, find it to their advantage to use more machinery when farm labour is expensive, even though factory labour is also expensive. The more expensive manual labour becomes, the more profitable it becomes to exercise all those faculties that economise manual labour. The inventor and the investor are both called into action

when past labour and present labour are co-ordinated through the use of machinery.

The case of a wage increase in a given industry presents a peculiarly complicated problem. There is, first, the question whether such a wage increase will really add to the cost of the product of the industry. Here the possibility of introducing substitutes for present labour in the form of the products of past labour, inventiveness, thrift and enterprise in the form of machines, comes in. In the second place, we have to consider whether, in case there is an increased cost of production, that increased cost must be borne by the business itself or whether it can be shifted to the buyers of the product in the form of a higher price. The main part of the present article is a partial answer to this question.

There is still another aspect of this question of increased cost due to higher freight rates, wage advances, etc. Suppose that the business is making abnormally large profits, cannot the wages come out of profits without being shifted to the buyers of the product? If this means that *some* producers are making large profits and some are producing at the margin, or at a cost that approximates to the equilibrium price, the question is answered in our discussion of cases of inelastic supply. Curve *a b* in Diagrams I and III represent such a case.

If the question presupposes that there really is, strictly speaking, no equilibrium price, or that even the most costly part of the actual product is produced at a cost distinctly below the actual price, we have a case of monopoly, since nothing short of a monopoly would keep producers from increasing in number, or increasing their output until the price and the marginal cost would coincide. In the case of a monopoly that maintains a price distinctly above the cost of the most expensive part of its product, it might have to carry an additional cost without shifting it on to the consumer, but even this is doubtful if the monopoly is left free to fix its own price without any Government regulation. To begin with, the elasticity of the demand for its product would still be a factor even though the normal elasticity of the supply is eliminated and monopolistic control of the supply is substituted for it. If the demand for the product is highly elastic, the monopoly would find it more difficult to raise the price, because to do so would cut down its sales and compel it to produce on a smaller scale, and sometimes, at least, at a higher cost per unit. If, however, the demand for its product is highly inelastic, it would be easier to shift the increased cost to the buyer.

The question of the incidence of increased costs to a monopolistic producer involves the whole problem of monopoly price. Even this problem of monopoly price, apart from all questions of special costs, is partly a question of the elasticity of the demand for the product of the monopoly. It is generally understood that monopoly price is that price that will yield the monopoly the largest clear profit on its whole business. If a monopoly has already succeeded in finding that price, which we may call the *monopolists-optimum* price, and then has to incur a new cost, it may have to readjust its price level to secure the largest clear profit on its whole business, or in order to find the new *monopolists-optimum* price. This becomes a practical certainty if we assume that the new cost is so great as to wipe out all its profits if it continues to sell at the old price. The more nearly the new cost comes to wiping out all profits the more nearly certain it is that a new price will have to be found. Theoretically, even the slightest increase in cost should occasion some recalculation to establish a new *monopolists-optimum* price.

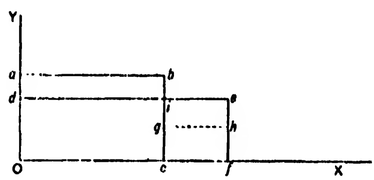
Still another problem presents itself. Suppose the production of a given product is in the hands of a monopoly, but instead of the monopoly fixing its own price, the price is fixed by Government authority, while the monopoly is free to produce or not as it chooses. Can it then be compelled to bear the incidence of a new cost, such as a rise in wages, tax on production, or higher freight rates? So long as the new cost leaves some profit on each and every unit of product, the old price may be maintained without curtailing production; otherwise not. Obviously if some part of the product is produced at a loss the monopoly would find it advantageous to stop producing that part.

An interesting, even a startling, conclusion is forced upon us when we consider an extreme case of monopoly that is operating under increasing returns or diminishing costs from large-scale production. In an extreme case of this kind in which the cost of production grows continually less as the scale of production grows larger, and continuously higher as the scale of production becomes smaller, the marginal unit is produced at the lowest cost, or more accurately, the first curtailment of production would cut off the production of those units that cost it least. At a fixed price the profit on the marginal unit would be greater than on any other.

At this point the objection may be raised that all units are produced at the same cost, and that if the cost of the marginal units is reduced, the cost of all units is reduced correspondingly.

Both statements may be true since they are not contradictory. In a case of this kind, if the price-fixer made the price below the cost of any part of the supply it would necessarily be below the cost of every part of the supply. The monopoly could not save itself from loss by curtailing production, because to do so would increase the cost of every unit and increase the loss. The only alternative for the monopoly is to increase the scale of production or stop producing altogether. If, by increasing the scale of production, it could lower the cost below the established price, and could sell the whole product, that would be the better choice. If it could not, the better choice would be to go out of business.

This may be made clear by the following diagram, which represents the cost of production when production is carried on by a monopoly that is not yet producing on a scale large enough to give the maximum economy of production. In other words, as the scale of production increases, the cost per unit falls.



Let the scale of production be represented on the line O X, while the cost per unit is represented by the line O Y. If the number of units produced is represented by O *c*, let it be assumed that the cost per unit is represented by the line O *a*, and the total cost by the rectangle O *a b c*. When the number of units is increased to O *f*, let it be assumed that the cost per unit falls to O *d*, the total cost being represented by the rectangle O *d e f*. But the line *e f*, while it represents the average cost, does not represent the marginal cost. The *additional* cost of the quantity O *f* over that of the quantity O *c* is not the rectangle *c i e f*, but the rectangle *c g h f*. The marginal cost is represented, as nearly as it can be on a diagram of this kind, by the line *h f* rather than by the line *e f*.

If, under the condition of a fixed, or official price, the monopoly had to incur a new cost that wiped out the profit on the marginal and most profitable unit, the same new cost would necessarily wipe out the profit on the whole product. If, at the fixed price, the monopoly could not produce the marginal unit at a profit, it certainly could not eliminate the marginal unit and produce on a smaller scale at a profit. In short, a cost that would cause

it to cut off its marginal unit would compel it to stop producing altogether. In other words, the price-fixer could compel the monopoly to bear the incidence of such a cost provided it were not heavy enough to drive it out of business altogether. As a matter of fact, however, a typical monopoly operates a number of plants. It is extremely improbable that the cost of production would be the same in every plant. In that case, a new cost might cause it to suspend production in the less efficient plants, while continuing in the more efficient.

The following question may be raised: suppose the production of a given commodity is not monopolised but is carried on by a number of competing concerns, each one of which is producing on too small a scale to secure the maximum economies of large-scale production, or each one of which could produce and market at a lower cost per unit if it could produce and market on a larger scale, what would then be the incidence of a new or special cost applied to every producing concern? It is impossible to say. The answer is not very important, because such a condition can be only temporary. It inevitably leads either to a monopoly or to such a reduction in the number of competing concerns as to enable each one to produce on a scale that will secure the maximum economies of large-scale production. In either case, the answer is contained in the foregoing discussion. During the temporary period of instability, when there really is neither an equilibrium price nor a monopolists-optimum price, the question of the incidence of a special cost cannot be answered.

This article has been designed to throw light on the problem: Who bears the burden of extra costs, such as extra freight charges, taxes, tariff duties, etc.? Another question of a similar nature is: Who gets the benefit of a reduction of any of these items of cost? The answer to this question in the case of any commodity is a corollary of the answer to the other, and will present no difficulty to anyone who has followed the writer's reasoning to the bitter end, or who, without having done so, is able to answer for himself the question which this article was designed to answer.

T. N. CARVER

SIR THOMAS GRESHAM AND THE FOREIGN EXCHANGES

THE modern Bill of Exchange is the product of a long process of evolution extending back many centuries, in the course of which many changes have occurred both in the details of exchange mechanism and in the theoretical structure based upon it. An attempt is here made to outline this mechanism and theory at one stage in their evolution.

By the middle of the sixteenth century Antwerp had achieved among the centres of exchange business a position second to none, owing to a variety of circumstances. The first of these was the changing geographical conditions which caused the Italian ports and the fairs of South Germany and France to give place to the Atlantic ports and marts as the chief clearing-houses of the trade between the East and Northern Europe. Another reason was the policy of free trading facilities which induced nearly all the most prominent international business interests to maintain permanent agencies there. Even the Portuguese Indian monopoly was unable to maintain Lisbon as its distributing market. The bulk of the buying there would appear to have been on behalf of wholesale houses who afterwards disposed of the goods in the much better market of Antwerp.

The capital thus made available at Antwerp is strikingly shown by the rise of its money market, where facilities for borrowing were better than anywhere else. This was discovered in the 'forties of the sixteenth century by nearly all the European princes, including our own King Henry VIII. The following observations are gleaned from a study of the manuscript correspondence, now in the Record Office and the British Museum, relating to the loans raised in Antwerp for the English Crown between 1544 and 1570—by which time political turmoil had practically ruined the town. This correspondence illustrates, not only the character of exchange business, but also the views of various Government agents and advisers on the Theory of Exchange and the best methods of control.

The market was of an advanced type, and aroused the admiration of the English agents. It was unique in possessing a building (referred to as " the Burse ") in which the merchants met, and which Sir Thomas Gresham imitated when building the first

Royal Exchange in London in 1566—prior to which there was here no better market than the pavement of Lombard Street. Upon this Bourse was focussed all the business of Antwerp, with all its resemblance to modern commerce and all its difference.

The most distinctly mediæval element was the coinage, the condition of which was a serious handicap to commerce, especially as there were no banks to relieve the ordinary merchant of the labour of dealing with it. Every settlement of debt had to be made in coin, and in the case of the loans referred to in this article it is a common thing to read of the counting of the money taking weeks, owing to the number and variety of the coins to be checked. The quality also of many currencies (*e.g.* English between 1544 and 1561) made this a very anxious business, as a little unwariness in accepting coins might cause a big loss. One of the agents of Henry VIII even had to protest against the suggestion that he ought to weigh every piece.

The prevalence of bad money led the Flemings to devise as a remedy the official valuation of certain coins, which were designated "Permission" or "Valued" money. It was customary to stipulate for payment of bills of exchange and repayment of loans in permission money; two-thirds in gold and one-third in silver. This money, therefore, was usually at a premium varying from $\frac{1}{4}$ per cent. to 2 per cent. or 3 per cent. and higher at times of pressure.

There was a much more modern appearance in Foreign Exchange, though it had a much simpler structure than now. Foreign bills did not often pass from hand to hand, and specialists in Discount and Acceptance seem to have grown up subsequently, though the difference made by this was largely a matter of names, as much the same result was achieved. Every money market consisted of merchants in need of money, others with money and in need of foreign credit, and brokers. The number and importance of the last implies a high degree of specialisation, although they were not without their tinge of the mediæval, as they were often made instruments for the official control of foreign traders,[1] but there is abundant evidence that they did not

[1] It was, apparently, an important concession which the city of Bruges made to the English merchants of the Staple in 1559, when it was agreed that the latter should be free of brokers when buying. It was asserted in 1562 that in most foreign countries no "stranger" bought or sold except through a sworn broker, and the English Statute Book contains a number of regulations of similar import. Such arrangements were general, being due to the universal prejudice against foreigners. (State Papers Domestic, Addenda 1547–65, Eliz. IX. 27; *ibid.* XI. 73.)

lack legitimate employment. Dealings in Bills of Exchange without the intervention of a broker were exceptional.[1] The English agents invariably include brokerage in their statements, whether they are borrowing money on interest ("taking it up on interest" is their usual phrase), selling Bills of Exchange ("taking up money by exchange"), buying Bills of Exchange ("delivering money by exchange"), effecting insurances, or buying stores. The rate varied from 4*s.* 2*d.* per cent. (½*d.* in the £) to 20 shillings per cent.

Procedure was straightforward. The merchant needing money offered through his broker a bill on his (the borrower's) factor in, say, London. It was bought through another broker by someone needing money in London, who at once sent it over to his own factor there, who presented it for acceptance. Presumably the agent on whom it was drawn had a standing arrangement for such accommodation, unless the bill was actually drawn against goods.[2] He would therefore accept the bill and prepare to meet it at the stated time. For this there had grown up certain usances which varied with the distance the bill had to be sent, or according to local custom. Between London and Antwerp, usance was one month. Between London and Seville it was two. Bills were commonly drawn at sight, so many days after sight, usance, half usance, or double usance. They were sent in duplicate or triplicate (sometimes quadruplicate or more) by different posts for greater certainty of delivery.

The form was:

> At usance pay by this my first Bill of Exchange, my second not being paid, unto George Wolfe or the lawful bringer hereof the sum of £100 sterling in money current, for merchandise and for the value thereof received here, and put it to mine account, and make sure payment at the day.

The bill would appear to have had no further history until it matured. If its holder were short of cash he would supply

[1] Exceptional enough to receive special mention in the Italian merchants' petition quoted below.

[2] The majority of the bills surviving in the papers on which this is based are purely financial bills and have no relation to trade. The English Government paid its foreign agents by authorising them to draw upon its financial agent in Antwerp (or by ordering him to send bills on local merchants to them), and Sir Thomas Gresham often obliged travelling nobles with the loan of his credit in the same way. The example given below comes from a letter sent by Richard Clough, Gresham's Antwerp factor, to Thomas Cecil's tutor, explaining how to draw a bill. Clough runs more to words than did most merchants. (State Papers Foreign, 1563, 23.)

himself in Lombard Street, by selling a new bill on his own foreign agent. At maturity the drawee would meet it (or have it "protested" and be therefore ruined), either out of a balance to its drawer's credit in his books, or by selling a bill on the latter, and so returning the indebtedness to its source. This last was the process of "rechange."

"And so," proceeds a memorial presented to a Royal Commission in 1576, "in the time of a usance of Antwerp, a usance of Venice or a Fair of Lyons, the matter might be compassed with little loss, and they (the petitioners' principals in Italy) might help themselves with their money of their wares long before it were due."[1] The same petition also explains how in the case of "outward commissions" the factors who were instructed to buy, received the money entirely by exchange, either by means of a bill sent them from abroad, or by their own bill drawn on their principals; further, the exchange enabled a merchant to keep all his capital employed, and yet pay his debts promptly by taking up money for Antwerp or wherever he had goods for sale; any interference with the cost, or the liberty of exchanging, would compel him to contract his operations in order to keep a reserve of money by him.

It was only to be expected that attempts would be made to subject the exchange to control. The means employed were, in the absence of clear ideas on economic theory, necessarily arbitrary and generally bad in their effect. They were, in fact, historically, the regulations of the money-changing business applied to Foreign Exchange, and were inseparably connected with the Mint regulations. For a long time the offices of Keeper of the Royal Exchanges and Master of the Mint were combined in the hands of one person.

The purpose of the control of money-changing was to prevent the export of English coin, in order to maintain its standard. The method was to establish fixed exchanges which all travellers were required to use, and where money was changed or gold and silver bought at rates fixed by the Government. Thus depreciation of the English coin was believed to be prevented, and at the same time precautions could be taken against breaches of the law against carrying oversea more than a limited sum of money. The almost continuous series of proclamations against unauthorised exchanges shows, however, the failure of the policy, or suggests that Bills of Exchange were regarded as a means of

[1] *Remonstrance of the Italian Merchants in London against the Imposition and Order set upon the Exchange:* printed by Schanz, II. 642.

evading the law, and of passing coin to and fro invisibly. The suggestion that Foreign Exchange and money-changing were regarded as one problem becomes certainty in 1508, when the Keeper of the Exchanges was styled "Custos Cambii, Escambii, et Recambii," and more clearly in 1509 when that official, under the title "Keeper of the Exchange between England and Foreign Parts," was directed to take all the money which travellers or merchants required to send abroad, giving in exchange Bills of Exchange on the centres they named.[1] Henceforward, Exchange clearly meant Foreign Exchange proper, but at first there was no alteration in the official method of control, which still relied on monopoly or prohibition, and regarded Foreign Exchange as a means of exporting gold and silver. There were strong influences at work, however, to secure freedom of exchange. In 1538 Sir Richard Gresham protested that "For lack of exchanges I do suppose there will be some conveyance of gold. . . . I am sure that these exchanges and rechanges do much to the stay of the said gold in England."[2] Imperceptibly, such views worked a change in the balance of opinion, until in Elizabeth's reign little more was attempted than the maintenance of a favourable Rate of Exchange. The official method of doing this still tended to be by Proclamation, and numerous "Projectors" came forward from time to time, each with a cut-and-dried scheme for his own appointment as "Chief Broker for Strangers" or similar post, in which capacity he guaranteed to prevent negotiation of Bills of Exchange at rates less than the True Value of English coin in foreign money.[3] The agitation produced in 1575 a Royal Commission, and the appointment of Lord Burghley as Keeper of the Exchanges for twenty-three years. The chief interest of the episode attaches to two Memorials presented to the Commission by Italian and English merchants of London.[4] The former has already been drawn upon for details of exchange practice. It concludes with remarks on the Rate of Exchange, to the effect that this is fixed on the market by the plenty of Deliverers and Takers (*i.e.* by Supply and Demand), and that if sometimes they accept a rate which represents less than the true value[5] of the

[1] Macpherson, *Annals of Commerce*, II. 31, 35.

[2] Cott. MSS. Otho E 10, 45.

[3] State Papers Domestic (addenda) Eliz. IX. 47; XXIV. 45. State Papers Domestic, Eliz. CVI. 6.

[4] Both printed by Schanz, *loc. cit.*

[5] This phrase means Metallic Par, and is characteristic of the general attitude of the time towards exchange. It compares with the parallel conception of Just Price.

English coin they are very sorry and would gladly it were otherwise; a truism which was not regarded as such by the ultra-patriotic English at the time. The English remonstrance is shorter and dwells on the legal aspect. It points out that the wording of the ancient statutes which were cited as authority for the revived control policy proves that they referred only to the "public exchangers ancient, called Lombards," who keep open shop to exchange gold for white money or strange coin for native. The proof is that the statutes lay down the true value of the foreign coin in English money, "*which consideration has nothing to do with exchange as we do use it.*" These men were not far from the light, but it was to be some time yet before their conception became as articulate as the older one which they here deny without being able to support their own with logical force. Their champion appeared in the reign of James I, when Edward Misselden published his "Free Trade" and "Circle of Commerce," against which the dying theory raged in the shape of Gerard de Malynes' vituperative publications.

Meanwhile the Government had already turned away from the theorists, and for over twenty years followed the advice of a practical merchant in its exchange policy. This was Sir Thomas Gresham, who discredited all idea of direct interference with the exchange, and appears to be the first to rely on the manipulation of the market for the purpose of keeping up the rate. His opportunity arose from his employment as agent to the English Crown in Antwerp, where for over twenty years he had charge of the whole of the financial interests of his sovereign, both in the matter of the borrowing, prolonging and repayment of loans, and in the spending of the proceeds upon munitions of war, secret service and other business.

It must be understood that the service of these loans involved much greater operations in exchange than that of their modern prototype, because of their essentially temporary character. There was no investing public. The money was lent entirely by the big financiers, who treated the loans as speculations, and expected to turn their capital over at least as often as in business, while if at any time commerce offered better openings, they expected to transfer their money without difficulty. Thus the longest-dated loan raised for the English Crown on the Antwerp market was for twelve months, and the majority were for six. Every six months, therefore, the Crown agents came on the exchange (except in the rare cases when they carried out the operation in bullion) for enormous transfers of credit between

England and Antwerp. Every effort was made to minimise this by paying off loans with newly borrowed money, or by prolonging loans, but with all allowances the exchange had to carry many times the business that would have been involved by payments of interest only.

Sir Thomas was a merchant with considerable opportunities for gaining experience in foreign trade. The view of his father, Sir Richard Gresham, upon Foreign Exchange has been noticed above, and there can be no doubt that he gave his son the advantage of a long start on the road to clear apprehension of commercial problems, since we learn that he regarded it as essential that Thomas should serve an eight years' apprenticeship in the service of his uncle, Sir John Gresham, though his freedom of the Merchant Adventurers was not dependent upon it, he being free " by his father's copy."

Like the Italian merchants already quoted, Sir Thomas appreciated the fact that the Rate of Exchange was governed by the amount and character of the business done. His aim was therefore to control this business: to bring it about that in Antwerp there should always be a shortage of bills on London for sale, while in London there would be more bills than money. He would do this by purely financial operations, independent of the state of trade, and he did not understand that if he succeeded in raising the rate, it would operate upon trade in such a way as to counteract his efforts. Not that he failed to realise that it would cheapen foreign wares, but he seems not to have admitted the consequent stimulus to imports and depreciation of the exchange. His letters on this subject, therefore, are a curious mixture of sound practical knowledge and unsound or half-correct theory.

In brief, his aim was to take full advantage of the effect upon the exchange of his borrowings in Antwerp while minimising by various devices the contrary effect of the repayments. In fact by means of one of his devices he believed he could make even payments from London to Antwerp serve the purpose of raising the exchange. His first precaution was to use the exchange with discretion; to pick his times for remitting money, and to do it cautiously a little at a time (" by little and little as the exchange goeth "), so that his own operations never sent the exchange appreciably against him. He preferred his operations on the open exchange to pass unnoticed when he was remitting to Antwerp. In the other case, although he never courted publicity, he minded it much less, because its effect on the rate was what he desired.

In transmitting money to Antwerp, besides insisting upon what he calls fine practice and secrecy, he preferred as a matter of practical convenience to do it by selling bills in Antwerp rather than by buying them in London, because, first, of the advantage to the Crown in respect of time, secondly because he thus avoided risking anything, on the stability of the merchant who effected the exchange, and thirdly (and chiefly) because, as mentioned above, "the plenty of money amongst merchants doth cause the exchange to fall in London, and here (Antwerp) the plenty of money doth cause the exchange to rise. Therefore I would wish the King's Majesty to be at his liberty . . . whereby the merchants should be kept hungry of money till opportunity served, whereof from time to time I should advertise you." [1]

In all this he was on solid ground, but his most famous device for avoiding the open exchange when transmitting money from London was less safe.

It was based upon the most important of the causes of seasonal fluctuations in the exchange—the regular shipments of cloth to Antwerp by the Merchant Adventurers. These were made twice or three times a year, in fleets of thirty or forty vessels, carrying thirty or forty thousand pieces of cloth, worth about £100,000 to £150,000. The shipments were timed to coincide with one or other of the four great annual marts at Antwerp.[2] These were the times when money was cheapest in Antwerp, because they were the regular reckoning times, during which merchants were most abundantly put in funds by sales of goods, repayment of loans, and maturity of Bills. The sales of English cloth naturally fostered a concentrated demand for bills on London, which sent up the rate.

Familiarity with this suggested to Gresham the idea of intensifying it. By administrative action at home the fleet was arrested as soon as loaded, and the merchants invited to negotiate with the Privy Council for the payment of a large sum to Gresham in Antwerp, on the basis of an exchange transaction, the object being to get them to pay at a much higher rate in Flemish pounds than the market rate.[3] This rate was duly advertised by Gresham in

[1] State Papers Foreign, 1547–53, 653.

[2] Cold Mart—centring round February 20; Paysse or Pasche Mart in May; Singzon or Cinqueçen Mart about August 15; and Barnes Mart, November 20.

[3] The exchange between London and Antwerp was always quoted in shillings and pence (Flemish) to the pound sterling The Flemish pound contained 20 shillings (sols) of 12 pence (deniers) exactly as the English. There were no coins actually in circulation of the value of £1 or 1 shilling, but the denier was equivalent to the half-stiver (20 stivers = 1 florin—a gold coin).

Antwerp, in the hope that it would be accepted as a genuine quotation, and force up the market rate to correspond. The whole operation may be thus summarised from Gresham's own letters.

(1) The merchants ship at least 40,000 or 50,000 cloths and kerseys.

(2) The plan must be kept secret, and nothing done till all the cloths are water-borne.

(3) A note to be taken from the Customer's book, of exactly what is shipped and "who be the great doers."

(4) Send for the heads of the Company and demand 20 shillings sterling on every cloth, this sum to be paid in Antwerp at the rate of 25 shillings Flemish to the pound sterling and repaid in sterling in London at Double Usance.

(5) They must not be allowed to bring this price down in the bargaining below 22 shillings or as much more as the exchange may be in Lombard Street [1] when the money is paid, since Gresham "would in no wise have them accustomed to make a profit at Her Majesty's hands."

(6) They must be bound to pay in permission money, as the Queen is bound to pay her debts. This is not to be mentioned till the rate is agreed! [2]

(7) This bargain, he says, will "raise the Exchange to a honest price. As for example; the exchange in King Edward's time, when I began this practice, was but 16 shill. Did I not raise it to 23 shill., and pay his whole debt at 20 shill. and 22 shill.—whereby wool fell in price from 26 sh. 8d. to 16 shill., and cloths from £60 a pack to £40 and £35 a pack with all other our commodities and foreigners'; whereby a number of clothiers gave over the making of cloths and kerseys; wherein there was no man touched but the merchant, for to serve the Prince's turn; which appeared to the face of the world that they were great losers, but to the contrary, when things were brought to perfection, they were great gainers thereby." [3]

The emphasis on secrecy, the hint of sharp practice over

[1] The Lombard Street rate naturally tended to be higher than the Antwerp rate, since the interest element on the shortest dated bills was always appreciable, and these negotiations were for two-months bills. Generally the Lombard Street rate for a bill at usance was *6d.* higher than the corresponding Antwerp rate. Gresham therefore is insisting upon at least this minimum advance on the actual market rate in Antwerp.

[2] Permission money would, of course, be at a premium—especially during the fairs, so that this was suppression of an important condition, likely to affect the willingness of the merchants to agree to a high rate.

[3] State Papers Foreign, 1558–9, 369. Gresham to Cecil, March 1, 1559.

permission money, and the complacency with which Gresham regarded the effects upon industry, of falling prices, will be noted. It is unnecessary to point out that the improved exchange was the effect, not the cause, of this price movement.

In effect he was making a corner in the money available for purchase of bills on London—constituting himself by indirect means a kind of Keeper in Antwerp of the Exchanges to London.[1] The result of his action is at least doubtful. The normal supply of trade bills on London for which the English merchants would otherwise have competed would be starved by Gresham's corner of the bulk of the money from the cloth-sales, and these bills would be left to compete for the inadequate residue of the money, *thus forcing the market rate down* rather than up.

Whether it thus defeated its purpose or no, Gresham's device inflicted a double injury on the merchants. In the first place they were obliged to remit home large sums of money, which they might conceivably have preferred to keep waiting a little for lower rates, or perhaps to employ in Antwerp. In the second place they were compelled to give more in Flemish money for each 20 shillings sterling than even the seasonally excited market would exact. Gresham's answer to this was lame. He asserted that the cheapening of foreign commodities in English money, by the rise in the rate of exchange, enabled them in the long run to get more profit than he caused loss, and in any case the Queen only took 20 shillings a cloth, ten at least of which represented their clear profit on the sale; while in buying Gresham's bills they ran no risk of default,[2] and even if the Queen might have to delay payment for a time she would allow interest for the delay.

He realised, however, that they did suffer damage, and he staunchly supported their claim to a tightened monopoly to enable them to bear the strain. Both against the Steelyard and against native interlopers his indignation was strong, and it is highly probable that in his talks with his fellow-merchants he represented their financial services to the Queen as payment for her support against those rivals.

With regard to his claim to have ruled the exchange, the actual

[1] The organisation of the Merchant Adventurers, while not giving them a complete monopoly of trade to Antwerp, gave them a substantial part of it, so that if Gresham obtained the bulk of their available money, he would practically have a monopoly of the exchanging of money to England.

[2] Though Gresham mentions this nowhere else, and lays no emphasis on it here, this is clearly the best justification for charging them a higher rate for an exchange through the Queen's agent than for one through a merchant, whose solvency was so much at the mercy of storms and other incalculable factors.

course of the available figures does not substantiate it. The rise from 16 shillings to 22 shillings certainly took place, but is obviously caused from the beginning by the correction of the coinage, of which the first and greatest step was taken in 1551, when the Teston was called down from one shilling to sixpence, and the final step in 1561, when Elizabeth completed her re-coinage of silver, and called in the base money. The doubling of the metallic value of the pound sterling in 1551 is quite enough to account for an even more rapid rise in exchange than actually took place. The retarding influence was no doubt the slowness of "purchasing power" to adjust itself to the new value, and the incomplete recovery (only 22*s*. 6*d*. instead of 32 shillings) is the measure of the strength of established wages and prices to resist the cuts which a mere consideration of the metallic content of the coinage would have imposed. Even so, the effects were drastic enough, as is shown by Gresham's remark on the price of wool and cloth.

It was not till the spring of 1552 that Thomas Gresham got to work on the King's overseas debt, and he did not try his exchange-raising plan until the end of the year. There is evidence [1] that the exchange had risen to 19 shillings before August of that year. By the spring of 1553 it was fluctuating between 19 shillings and 20 shillings, and by the following autumn it was between 22 shillings and 22*s*. 10*d*. Under Mary it depreciated unsteadily to 21 shillings. Elizabeth found it about that level and experienced a fairly steady rise in twelve months to about 22*s*. 6*d*., after which only seasonal variations are noticeable, or variations due to the Queen's borrowing operations, or to panic arising out of political conditions. For example, the borrowing and transmission to England of £150,000 Flemish in the Cold Mart 1560 sent the rate up to 22*s*. 9*d*. for about a month; while heavy repayments in the summer of that year, along with a panic caused by fear of war with Spain (which meant the Netherlands also), sent it down to 21*s*. 6*d*. Each of these changes extracted from Gresham long statements of theory in which he contrived to claim the credit for every improvement, and to throw the blame for each set-back on the unpatriotic action of the English merchants, or neglect of his advice by the Government, but there is no need to look beyond the usual causes affecting exchange for the real reasons.

[1] A list of bills sold by Gresham during the summer, in Cott. MSS. Galba B XII, 186. The other rates also come from Gresham's papers, either incidental mention in letters, lists of exchange transactions, or his Declared Accounts.

In spite, therefore, of the novelty and plausibility of Gresham's ideas, he was really no more successful in controlling the exchange than were his contemporaries who relied on more direct means. This was perhaps fortunate, as his purpose throughout was not stabilisation of the exchange but a continuous forcing up of the value of sterling in order to secure the perpetuation of the import of gold and silver, upon which he and all his contemporaries set such store. To his mind, as to those of modern politicians, the delusive advantages of a rising exchange made a strong appeal, and like them he was careless of the disastrous effects of the fall in prices which necessarily accompanies such a rise.

There was in 1560 a proposal not merely to control, but altogether to stop exchanges, and Gresham fought it with a vehemence and conviction worthy of his father. The author of the proposal, Mr. Hussell or Hussey, Court-master of the Merchant Adventurers, apparently argued that the high rate of exchange led only to merchants' abandoning trade in order to take up smuggling of gold and silver, returning their money by exchange, with bad effects on Her Majesty's Customs. Gresham's reply is characteristic.

"And likewise, whereas it pleased you, at my last being in England, to break with me for the banishing of the exchange; Good Sir, if either my writing or otherwise may be credited with you, I would wish you never to consent to the same; for I am right well assured it will bring down the exchange, and be the only mean that within the space of two years all our fine gold and fine silver will be transported and conveyed out of our Realm again. And now seeing most evident before your eyes that the thing is well, and in such sort with the raising of the exchange, we do without doubt rob all Christendom of their fine gold and fine silver; and after once brought into the Realm, there it doth still remain; and that thereby all foreign commodities and ours, with all manner of kind of victual, doth fall to a reasonable price, and daily like to be better cheap if the exchange do rise higher as it is like to do if it be well foreseen in time; and our money merchants sometime to be bridled, and used sometimes for the service of the Prince, whereby to keep them in order, that they for their own greedy lucre and gain bring not down the exchange; of the which, in King Edward's time and since in Queen Mary's time, and now in this Queen's time you have had sufficient proofs in that behalf. . . . Mr. Hussey, the civilian, hath no more understanding of these matters than he that was never brought up in it. And likewise, whatsoever you have conceived that in

banishing the exchange it should be the only mean to augment the Queen's Majesty's Custom, I will inform you, Mr. Secretary, it will prove clean contrary. As, for example, when men do find more profit in carrying home of gold than to deliver by exchange, they do not bring home the gold to deliver back again by exchange, but only to remain there to be employed in our commodities, for that doubtless they do find more profit in the bestowing upon our commodities than to deliver back again by exchange; so that consequently the exchange being at this rate as it goeth now, cannot minish the Queen's Custom, but wholly augment the same, to the great estimation [1] of all our commodities within our realm, to the great hindrance and stay of all foreign commodities good cheap, as likewise to the great enriching of the realm with fine gold and fine silver for ever." [2]

A more complete confession of faith cannot be found in Gresham's correspondence. It is characteristic, too, in its empirical and half-accurate expression of theory. He knew that an unduly high exchange cheapened imports and yet would not admit that exports might be correspondingly restricted, because it would not do, in view of the form in which the theory of the balance of trade was then held, to acknowledge such a fact. Moreover, it is certain that he never realised that movements in the Rate of Exchange are ultimately the effect rather than the cause of changes in price levels.

It is this incomplete digestion of experience which makes the economic experiments of the sixteenth century so strange and often futile. Few men had the vast experience of Sir Thomas Gresham, and therefore few approached theoretical accuracy so closely; but not even he rose above the rough-and-ready reasoning of the age.

H. Buckley

[1] Appreciation in value.
[2] To Cecil, March 1, 1560. State Papers Foreign, 1560-61, 84.

REVIEWS

Is Unemployment Inevitable? An Analysis and a Forecast. A Continuation of the Investigations embodied in *The Third Winter of Unemployment.* (London: Macmillan & Co. 1924. Pp. viii + 388. Price 8*s.* 6*d.* net.)

THIS book is a most valuable piece of work; and if in any way it suffers in comparison with *The Third Winter*, this is due not to the quality of the work, but to the form which it had necessarily to take. A prolonged inquiry into every aspect of their problem being impracticable, the authors "preferred the method of relying on authoritative opinion to that of attempting to investigate every point independently" (p. v). The volume is thus mainly a collection of essays to which the authors' "Survey and Forecast" (pp. 3–87) forms both an introduction and a conclusion. The book, therefore, draws upon a wider expert knowledge than *The Third Winter* did, and, as the individual essays are admirable, contains even more work of a high quality. But it lacks the sense of unity of its predecessor.

The answer, which the authors seek, is primarily not to the question whether unemployment generally is inevitable, but whether the abnormal unemployment of recent years and the unemployment that results from the normal trade cycle can be avoided. They argue that in ordinary years, which are neither specially good nor specially bad, there is, owing to causes such as seasonal influences, changes in processes, etc., a total of from 400,000 to 500,000 men and women unemployed, which figure would, at the height of a trade boom, be reduced to about 250,000. It is possible, however, that the average unemployment of good and bad years may be above the figures for a normal year. Some of the proposals made by the authors, such as for reducing the trade cycle, may also help to decrease normal unemployment. To some extent trade depressions appear to intensify seasonal influences; and, so far as this is so, any mitigation of their severity will help to reduce seasonal unemployment.

The authors take a hopeful view of the future of British industry, after a survey of the economic position of the country and of the future of the world's trade. They point out that the

abnormal unemployment of recent years has already been reduced from a maximum of 1,500,000 in June 1921 to from 600,000 to 700,000, and they "do not believe that the abnormal unemployment of the last few years will become chronic or inevitable." The immediate future, indeed, is more doubtful, depending as it does on the restoration of settled economic conditions throughout the world. Growth in the occupied population is not very likely to be a serious cause of difficulty. Professor Bowley argues, on the contrary, that by 1941 the numbers available for employment between fifteen and sixty-five will, if emigration is normal, begin to decrease, and, as the authors say (p. 9), "the problem fifteen years hence may be an insufficiency of labour." It is possible that the importance of the fall in the death-rate is not sufficiently allowed for; since while "there is unlikely to be any important change in the low rates already existing for working ages" (p. 360), the great fall in infant mortality may largely offset the falling birth-rate, and so maintain the numbers who reach working ages. Again, if the population as a whole ceased to grow, the natural increase in demand might be checked; but this does not appear likely in view, among other things, of the marked increase in the numbers surviving over the working age.

The authors speak on the whole with confidence as to the efficiency of British industry. Thus, "the war has caused improvements (*i.e.* in technique) to develop here, which we believe to be as rapid and far-reaching as those of our competitors" (p. 85). This view seems to be supported by Mr. Jeans' essay on the Iron and Steel Trades, and Mr. Horsfall's on Engineering, the latter claiming that "the war has brought about immense improvements both in the mechanical equipment and in the workshop methods" (p. 280). A less hopeful note comes from Coal-mining, in the statement (p. 230) as to many collieries possessing funds available and schemes ready for development, but being unwilling to carry them out under prevailing conditions; for, after all allowance for their difficulties, this seems to indicate that leaders of the industry in recent critical years have failed to realise fully their responsibilities either to their work-people or to the nation.

The position in respect of output is also regarded as not unfavourable. There has been a great improvement on 1919–20, when the low figures were in part due to war weariness. Most piece-workers have made good, and more than made good, the reduction in hours (p. 72); and in Engineering, Mr. Horsfall,

referring apparently to both time and piece workers, says that "in spite of the reduction of the normal working week from fifty-four to forty-seven hours, there is little evidence at the present time of a reduction in output per man" (p. 281). Generally speaking, however, the authors hold that the output of time-workers has increased, but not sufficiently to offset the decrease in hours. In Coal-mining Mr. Thornycroft appears to argue from a comparison with 1907 (*i.e.* before the Eight Hours Act) that there has been no improvement at all to offset the reduction from eight to seven hours. But his own figures seem to show that the rate of output in 1923, calculated on the March totals, is only a little over 6 per cent. below that of 1913, a year of quite exceptional prosperity. There is little evidence in the book of any desire on the part of the workers to prefer unemployment benefit to work.

There is some interesting matter dealing with wages. Professor Bowley, in an all too short paper, examines the effects on unemployment of adjusting wages according either to the level of prices or to the state of trade. On the much-discussed question of relative wages, the authors generally support the view that "wage rates do not yet seem to be in equilibrium as between various trades," that the sheltered trades are at present unduly favoured as compared with the export trades, and that increases due to monopolistic influences are harmful. At the same time they rightly argue that "the pressure for higher wages, in which the so-called sheltered trades may properly play a leading part, is a potent force tending to improve the processes of industry in general." Moreover, in considering the question, it has to be remembered that the more fluctuating trades tend to gain relatively to others during a boom and to lose during a depression, and that both the war boom and the post-war depression were exceptional. This accounts for part of the present disadvantage of the sheltered trades.

On the subject of taxation, the authors hold that the present rate, if heavy, is not "a fatal handicap," though the system needs to be carefully watched "to ease the dislocation caused by heavy tax collection," and that the rating system needs to be readjusted. Professor J. H. Jones, who discusses the whole subject in the future of British industry, considers the possibility of substituting, as in Germany, a local income tax in place of the present rating. In contrast with the Corporation Tax, whose abolition he desires, he does not find evidence that the Income Tax is such a burden as to injure industry in foreign competition,

nor that it is in practice added to the price of commodities. Indeed, in support of his view, it may be urged that the latter is more likely to happen during a boom in trade when demand is in excess of supply. It seems, in fact, to have occurred to some extent in the later years of the war.

Among possible remedies Professor Pigou discusses, first, a policy of using the Bank of England rate of discount to check upward price movements, and regard it as possible, at least in theory, though subject to serious difficulties and needing most careful safeguards. The matter is fully dealt with elsewhere in the JOURNAL. Secondly, wider knowledge of economic facts could and would help to modify trade cycles, particularly as Great Britain appears at present to be inadequately equipped in this respect. Indeed, in a somewhat severe criticism, the authors contend that "the figures of unemployment are the only ones in this country which are appreciably better than those of other nations." Other valuable Government returns, *e.g.* on wages, appear to have suffered from the "anti-waste" campaign, and many other statistics are capable of wide extension. The importance of full and adequate information as a remedy for industrial unrest is rightly insisted upon. Thirdly, the adjustment of public contracts (central and local) to mitigate the fluctuations in private industry is explored in a special memorandum by Professor Bowley and Mr. F. D. Stuart, and by the authors in the Survey. The verdict within limits is favourable. The difficulties are clearly expressed, but do not seem insuperable. The direct benefit, indeed, may be limited to the Building and Constructive industries and to unskilled labour, but others, like certain branches of engineering, may benefit to a lesser degree. A little in this direction appears to have been done before the war, but the statistics available do not distinguish ordinary contracts from relief work. Where more is not possible, a policy of securing uniformity of work from year to year may be of some help, since such a policy will at least mitigate the fluctuations in part of the labour market. State action, however, needs to be assisted, as has been advocated, for instance, by Mr. D. H. Robertson, by similar action on the part of big industrial concerns in regard to development and maintenance work. Already something is being done on these lines. "Since 1921," says Mr. Horsfall, "those branches of the engineering industry whose products are in the stage of technical development . . . have found a growing market largely through the decision of other industries to effect every possible economy in their equipment"

(p. 277). And such work, moreover, provides largely for industries which are heavily hit by trade fluctuations and would receive only limited assistance from public contracts. Possibly more space might have been devoted to this side of the question.

The book has fully recognised the complexity of the problem, and the need of dealing with it along many different lines. Apart from what has been referred to, other important matters are dealt with, as, for instance, in Mr. C. K. Hobson's "Economic Effects of the Export of Capital," or in Sir A. D. Hall's paper on "Agriculture." The book as a whole thus provides an admirable survey of a most complex subject.

N. B. DEARLE

The Psychological Theory of Value. By GEORGE BINNEY DIBBLEE. (London: Constable & Co., 1924. Pp. xvi + 301. 12*s.* 6*d.* net.)

THIS is a most provoking book. Mr. Dibblee is a scholar, with a mind trained in abstract reasoning and stuffed with curious and varied information; he is also a practical man, gifted with remarkably shrewd powers of observation, which he has turned to good effect on the world of business. Further, he believes himself to have something important to say, and is almost passionately anxious to make plain what it is. Further, he is an expert in the arts of advertisement and salesmanship—of getting the goods in the shop-window and the play across the footlights. Yet the result of all this is a book of which the first half at all events is barely readable—a tangled undergrowth of quasi-metaphysical word-play, out of which there leap at intervals a succession of attractive hares. Probably they are pregnant hares, but we have no time to be sure, for so soon as each appears she is almost immediately lost to sight.

The arch-hare, so far as I can discover, bears the name of Multiple Value. "With the exception of Values for objects required for elementary needs . . . all Values depend essentially on the co-operation of two or more minds sharing common ideas of well-being, both consciously and unconsciously." In plain words, many things are desired, not because they afford direct enjoyment, but because they are a badge of social rank. "Nowhere" is this "more noticeable than among the self-respecting poor, with their unused parlour crowded with objects, none of which ever sees the use for which it was made." "The very rich . . . find whole classes of commodities, once desirable to themselves and still

wholly desirable to other people, absolutely without attraction." This hare is no leveret. Senior started her when he described the desire for distinction as the most powerful of human passions. Marshall, watching her with characteristic patience and concentration, concludes that "if, instead of seeking for a higher standard of beauty, we spend our growing resources on increasing the complexity and intricacies of our domestic goods, we gain thereby no true benefit, no lasting happiness." Pigou has pursued her with an apparatus of diamonds and top-hats and a net of duplex demand curves. But we may be grateful none the less to Mr. Dibblee for raising again the view-hallo, and reminding us that many "consumers' surpluses" are like bubbles —large and iridescent, but easily burst; so that if we could all carry out loyally a conspiracy to eschew snobbery, immense quantities of resources would be liberated for the enrichment of human life.

Space only suffices for a bare mention of some of the other hares. There are too few middlemen in the food-distributing trades, and not, as commonly supposed, too many (p. 60). The secret of the power which ordains feminine fashions is that it is anonymous, and therefore beyond inquiry or criticism (p. 102). Some rare objects are so rare that there is no market in them, and they therefore sell cheaply (p. 145). Public opinion will not permit certain services, *e.g.* the saving of human life, to have a market value (p. 148). Married men with children do not attempt to compete with the standards of expenditure of their bachelor friends, but they *do* attempt, disastrously, to keep pace with their friends who are married but childless (p. 169). The working-classes are very unwilling to use recourse to State-provided funds as a means of escape from personal destitution, but very willing to use it as a weapon in the class-struggle (p. 176). Capital in the mass is becoming as diffused and democratised as Labour, and as eager to escape from the risks and responsibilities of enterprise (p. 244).

It is, I think, better worth while to direct the attention of the reader to gems like these than to attempt to set out Mr. Dibblee's classification of the Seven Elements of Value (three Central, two Reciprocal and two Disruptive); or even than to inquire too curiously why, having dismissed the principle of marginal utility as nonsense (p. 216), he shortly afterwards invokes it under another name (p. 236) as the future determinant of social justice.

D. H. ROBERTSON

Risk and Risk-bearing. By CHARLES O. HARDY, Professor of Economics, State University of Iowa. (University of Chicago Press. 1923. Pp. xv + 400. $3·50.)

"THIS volume grows out of an effort on the part of the Faculty of the School of Commerce and Administration of the University of Chicago to reorganise its curriculum so as to make its courses correspond with the *functions* performed in the process of providing present-day civilised society with economic goods." Risk-bearing accordingly is treated as a function, parallel with "production (in the technological sense), finance, marketing, labour and social control," and the institutions through which it is performed are grouped for discussion in a single volume. There is, I think, much to be said for this design, though the manner of its execution inflicts a certain weariness. The framework of Professor Hardy's analysis is broadly as follows. The person exposed to risk can deal with it either by eliminating it, or by bearing it himself, or by transferring it to others. The chief methods of elimination are—(*a*) by preventing the harmful event, (*b*) by study and research, (*c*) by combination of risks so as to bring into play the law of averages. Transfer of risks usually involves their partial elimination, since those who assume them are generally specially qualified to apply one or other of the methods of elimination—*e.g.* an issuing-house applies "research" and an insurance company combination. The bulk of the book is built up on this analysis, and consists of a series of straightforward but rather overloaded descriptions of the technique of stock and produce exchanges, fire and life insurance, business forecasting, workmen's compensation and so forth.

There are two points in Professor Hardy's exposition which seem to call for special comment. The first is his excellent gloss on the economic doctrine that "profit is the reward of risk-taking." This is true in the sense that the existence of uncertainties restricts the application of capital in certain fields in such wise as to keep its yield higher in these fields than in others. It is not necessarily true in the sense that a given profit measures a given reluctance to bear uncertainty on the part of the earner. What would be a risk to some people is a lucrative certainty to others. "Profits are made most successfully by those who *know first* and reap an advantage from the uncertainty in other men's minds." The profits of the specially equipped are thus a "surplus" in the same sense as the salaries of the incurably energetic or the interest of the wealthy automatic investor.

The second point arises in connection with the futures market in commodities. Professor Hardy is concerned to show that the sale of raw material futures by a manufacturer only affords a complete hedge on the assumption of a uniform spread between spot and future prices, and is therefore led to a discussion of the causes determining the actual variations of this spread. He takes the view that we should normally expect a premium on futures equal to the cost of carrying the product, but that this premium is frequently reduced or even turned into a backwardation by temporary hold-ups in the passage of the product to market. It seems doubtful whether this explanation is sufficient to account for the chronic backwardation on futures which appears in certain commodity markets. Mr. Keynes has sought to explain this phenomenon by postulating that the urgency of the grower to sell forward is normally greater than the urgency of the manufacturer to buy forward.[1] But whether this be true or not, the fact that many hedging manufacturers appear not on the bull but on the bear side of the futures market, thus adding their weight to the growers, is surely sufficient to account for a normal depression of future prices below spot, or at any rate below spot *plus* cost of carriage, level.

D. H. ROBERTSON

The National Debt. By F. W. PETHICK LAWRENCE. (London: The Labour Publishing Co. 1924. Pp. 93. 8vo. 2*s*. 6*d*. net.)

MOST of this little book is quite uncontroversial, Mr. Lawrence's intention being, as he says, merely to "set out quite simply the nature of a national debt, to show how it grows, and how it is reduced." It is only at the end that he comes "to consider what ought to be done with regard to the British national debt at the present day," and decides in favour of a capital levy. The explanation of the nature and origin of national debts in general and the British debt in particular is compact and satisfactory. We may, however, question the proposition (p. 23) that "bankers' loans to Governments in time of war are not genuine loans at all." It is quite true that much, sometimes nearly all, of the money advanced to Governments since 1914 by central banks has been simply currency printed for that purpose and added to the issues outstanding, but it is just as possible for banks to lend real capital (provided by their customers) to a Government in time

[1] *Manchester Guardian Reconstruction Supplement*, March 29, 1923, p. 185.

of war as to lend it to private persons in time of peace or war. We may also question the statement (p. 62) "that the continued existence of a national debt is to withdraw wealth from industry and labour." The proposition follows an argument that the borrowing of money to carry on a war is not like the saving of money for productive enterprises, inasmuch as it does not add to the national income, but only creates an income paid out of taxes which diminish the net spendable incomes of the taxpayers. That is true, but it does not show that the *continuance* of a debt, once contracted, withdraws wealth from industry and labour. The additional equipment or capital, which would have been got in the absence of the war, has never come into existence, and will not now be brought into existence by any discontinuance of the debt. The interest on the debt is largely paid by taxes which clearly come from the pockets of the owners of "accumulated wealth," including the creditors of the State themselves. It is only the remainder, raised from labour incomes, which can be regarded even *primâ facie* as "withdrawn from industry and labour" in the sense that repudiation would relieve labour of the charge. And this remainder is subject to much reduction, since the mobility of labour makes it unlikely that any peculiar burden will long be borne by labour which has no "stake in the country." Migration, it is true, is much hampered by modern immigration laws, but it still exists, and is facilitated by modern transport facilities; and if it were entirely stopped, local variations in the "natural increase" of population would to a great extent take its place. It is altogether unlikely that any western European country could retain its workers if their condition were decidedly inferior to that of their equals in other countries. The effect must be to shift taxes primarily falling on the working classes on to the owners of permanent property.

EDWIN CANNAN

La déflation en pratique. By PROFESSOR CHARLES RIST. (Paris: Marcel Giard. 1924.)

PROFESSOR RIST'S theme, which he enunciates for the first time in his closing sentence, is paraphrased from a text in the Gospel ("que l'on n'a pas souvent l'occasion de citer en matière de politique financière"): "Seek ye first equilibrium of your budget and all these things shall be added unto you."

He treats of deflation in Great Britain, the United States, France and Czecho-Slovakia as it appears to an unbiassed

observer living in the midst of the facts which he chronicles and analyses. At the risk of having to change his conclusions later he considers it better to draw what conclusions he can now than to wait till all countries have returned to sound currencies. His justification he finds in economic method, in which the final appeal must always be to experience.

He distinguishes four types of deflation :

(1) "Radical monetary deflation," the withdrawal and destruction—the cremation recommended by Professor Cannan—of a portion of the surplus money, the creation of which caused the inflation.

(2) "Moderate monetary deflation," the repayment to banks of credits manufactured by them for the State, with liberty to use the freed assets as they may choose. This, however, seems to be rather a means towards deflation than deflation itself. As he remarks, this is a necessary antecedent to the first type, but whether it results in radical deflation depends on the banks, and on the course of events. If commerce revives as fast as the banks are repaid, there will be stability; if faster, deflation; if slower, further inflation. Perhaps "contingent" would be a better epithet than "moderate."

(3) "Financial deflation," the transfer to the public of the securities accepted by the banks for the credits created for the State. To some extent this also may be contingent deflation: if funding loans are subscribed out of savings, there will be deflation; if out of credit, matters will remain "as you were."

(4) "Credit deflation," the reduction of bank credits—by raising the bank rate, he adds; a questionable addition, since a restriction of credit may be brought about in other ways. This, he points out, is the normal second phase of the trade cycle.

In this country the reduction of currency from 1920 onwards was not due, he considers, to a studied deflationary policy, but was the spontaneous effect of a restriction of credit, quite other than the process contemplated in the Cunliffe Report, to which he gives a warm approval. The restriction of credit caused a fall in the price level, which in turn caused a flow of currency back to the banks and so, by way of the Bank of England, to the Treasury. This explanation requires qualification before it can be accepted. The fall of wholesale prices began in April 1920, and of retail prices in the autumn; but deposits in the banks went on increasing up to the end of 1921, as the following table shows:—

Year.	Bank of England and Currency Notes (a) (December).	Bank Deposits (a) (December).	Index-Number (Average).	Clearing-Houses Return (a).
1918	393	1,988	225	22,906
1919	437	2,356	287	30,603
1920	481 (b)	2,492	283 (d)	42,020
1921	433	2,527	181	36,655
1922	398	2,209 (c)	160	39,197
1923	398	2,155 (c)	162	38,659

(a) In millions sterling. (b) Maximum, August 4, 484.
(c) Plus Irish Free State Banks, 153 and 150 millions.
(d) Maximum, March, 311.

In the United States deflation began with the gradual absorption by the public of the loans made by the banks to the State in the first instance, an example of his third type. But scarcely had this process begun before it was masked by a wave of inflation due to the boom of 1919, an example of the fourth type, but much more intense than had ever before been experienced. In 1920 the crash came, and the double deflation proceeded concurrently till midsummer of 1922. The second deflation was induced by the rise in the rate of discount in June 1921; but the Federal Reserve Board acted thus, not with a conscious desire of deflating, but to protect its gold reserve. Like Mr. Hawtrey, Professor Rist thinks this might have been done earlier.

Since 1922 the United States have had to face an unprecedented situation, the deflation of a metallic currency. On pre-war conventions their gold holding is not excessive; but since the superstructure to be carried by the world's supply of gold is now some 50 per cent. greater than before, while the gold has not increased in like ratio, all countries will have to be contented with a reduced ratio of gold to liabilities. The superfluous gold of the United States will have to be distributed (by loans, Professor Rist suggests) to countries that need it.

France saw a continual inflation up to the end of 1920, then two years of slight deflation, followed by a renewal of inflation, as the unbalanced budget made its influence felt, operating through a fall in the exchange on internal prices and the volume of currency. But, he concludes, after a somewhat apologetic review of the French position, " So long as equilibrium of the budget has not been attained, it is, in truth, vain to speak of deflation."

In Czecho-Slovakia the most noteworthy phenomenon was the failure of a drastic reduction of currency to lower prices.

Despite a favourable (visible) balance of trade, the exchange fell throughout 1919 and 1920, owing to heavy budgetary deficits; but confidence has returned with better budgets, exchange has improved and prices have fallen, with a resulting reduction of the currency.

The general conclusion is that the most efficacious means of lowering the level of prices and raising a depreciated exchange are to augment production and balance the budget. The latter factor inspires confidence, checks bear speculation and attracts foreign capital. The psychological is more powerful than the material factor.

Professor Rist has evidently been inspired with the intention of influencing public opinion in France. His book will have its chief success in that field; but it will also be useful as an authoritative contemporary account of an important chapter of economic history.

J. I. Craig

Des crises générales et périodiques de surproduction. By Professor Jean Lescure. (Paris: Leon Tenin. 1923.)

This is the third edition of a work that originally appeared in 1906, but it is something more than a mere new edition, "revue et corrigée." For, since its first appearance much new material is available for the analysis of trade cycles. Besides the eleven crises that had then occurred since the beginning of the nineteenth century, there have been three more, two of them of the first order, to bring under the economic scalpel. There has, moreover, been a vast accumulation of official statistics.

Professor Lescure has taken full toll of the material, old and new alike. As befits the series to which it belongs, the *Bibliothèque d'économie politique et de sociologie*, the work is truly encyclopædic in its mass of detail. Not, however, that the trees have been allowed to obscure the wood, for the author proceeds by strict scientific method, from collection of data (300 pages) in an historical study of crises to induction concerning the alternation of swell and dip of the economic wave and the parts in the cycle played by different industries. He then discusses the causes of crises, of which "Bergmann . . . dénombrait 280." In this long chapter there is much about what are termed trade barometers, and after examination of the principal causes he finds the phenomena sufficiently accounted for by the rapidity with which the costs of production rise as compared with selling

price. But can one claim to have traced the phenomena to their causes if he stops short of referring them to the fundamental laws of the science? And what is the author's explanation of the periodicity?

Amongst remedies he leans towards control through the bank rate, though he reminds us that, before the war, the Bank of England and the Reichsbank used, on occasion, to drive home a rise of the bank rate by withdrawing money from the market. Professor Lescure is to be congratulated on a painstaking work which will be of use to the student, not only for the mass of data, but also for its handy discussion of theory.

J. I. CRAIG

Fourier—Précurseur de la Coopération. Par CHARLES GIDE. (Association pour l'enseignement de la Coopération, Paris.)

Les Coopératives de Consommation en France. Par BERNARD LAVERGNE. (Paris: Armand Colin.)

Cooperazione, nella dottrina e nella legislazione. By FILIPPO VIRGILII. (Milano: Hoepli.)

ONE of the dangers with which the Co-operative Movement is beset is that of myth-making. It is impossible to help a feeling that the really successful Co-operative Society in these materialistic days is the one which minds its own business—if one may speak so brutally—and ensures good returns to its members. In support of this view we may note that some of the countries in which co-operation has come to stay—notably Denmark—have a very scanty output of co-operative literature. Yet the making of books on this subject (though they certainly do not pay—*experto crede*) seems to be without end. Unfortunately most of these books are written by enthusiasts with a rather hazy economic outlook, and for the most part they are little more than sermons to the converted.

None of the three books now before us can be dismissed thus summarily. Professor Gide is perhaps the outstanding example of a man who is both an admitted authority on economics and an unflagging enthusiast of co-operation. He has already given us a standard text-book on co-operative consumers' societies in France, and his present book is, as it were, an excursion into the byways of the subject. If anything can revive interest in the almost forgotten doctrine of the "phalange," this book should certainly do it, for it is written in so lively a fashion that the reader who once takes it up is hardly likely to put it down until he has finished it. M. Gide makes Fourier

live again for us; he disentangles the real philosophy of the man from the frenzy which enveloped and finally destroyed it, and he does a pious service by pointing out the remarkable way in which many of what seemed the ravings of a lunatic turned out, in fact, to be the sayings of a prophet.

All this, however, though interesting and important, takes second place to the speculations which the author builds for himself as he goes along. One feels that M. Gide has discovered an ingenious method of humanising economic teaching, and giving us, as it were casually, his own matured opinion on the pressing problems of everyday life. In this manner he deals with domestic servants, communists, intensive agriculture, the various schools of socialism, the housing problem, the division of profits, the abolition of the wage system, and finally the vexed question of consumer versus producer in the co-operative movement.

The book is well named "Fourier—fore-runner of co-operation," and putting the book in place of the man we may say that it is itself an introduction to the study of co-operation. How true this is will be seen at once by anyone who goes straight from it to the work of another distinguished French professor, M. Bernard Lavergne, who deals with Consumers' Co-operative Societies in France as they exist to-day. In M. Lavergne's book we find the man of action dealing with the actual problems of a movement of which he is one of the moving parts. M. Gide and M. Lavergne have been colleagues for many years as leaders in the celebrated "École de Nîmes"—the so-called "bourgeois" group of French co-operators. They went together in the disastrous but inevitable "schism" of 1895, and played no small part in the timely reunion of 1912, which really marked the foundation of the modern French movement. But M. Lavergne does not by any means adhere slavishly to the views of his colleague, though he frequently quotes them with approval. He is a more dogmatic and perhaps a more practical man; one imagines him expressing disgust at theoretical formulæ; yet as a matter of fact he propounds himself some of the most doctrinaire formulæ that could be imagined. Besides a great deal of very interesting history (written in a most impartial manner) and some useful detailed description, the book is chiefly remarkable for the manner in which the author seeks to narrow down the definition of the word co-operative. The present reviewer was struck some years ago with the inadequacy of all existing groupings of the various types of co-operation, and spent much time with the help of an ingenious collaborator in trying to create

a scientific classification. The result was at least impressive to the eye, but no one has ever been known to approve of it. M. Lavergne recognises the existence of the same difficulty, but boldly solves it by denying all claim to the title co-operative on the part of any body except an association of consumers proper—by which he means consumers of household goods, and not of such articles as agricultural machinery, manures, feeding stuffs, etc. These latter are merely raw materials of production, and for M. Lavergne production seems to be a necessary evil, and the producer who seeks to increase his earnings by joining a co-operative society is merely using for the purpose of extorting money from the public "a fire God gave for other ends." It follows that the millennium can be reached only when the consumer has achieved complete domination and gets all his production done for him by wage-earners—in other words, a sublimation of the methods now being followed by the English and Scottish Co-operative Wholesale Societies—to whom, by the way, one may confidently recommend the task of having M. Lavergne's book rendered into English. Naturally the author sees the necessity of saying a word on the problem of the wage-earner, but he deals with this in the same bold and summary fashion by pointing out that as there will be no capitalists every wage-earner will share, as a consumer and a member of the consumers' commonwealth, in the rising or falling prices and dividends brought about by his own rising or falling wages, and therefore his real wages would remain constant. Time and space deter us from following the trail of an elusive fallacy, but in any case M. Lavergne's solutions, like so many others, fail to convince those who are keenly conscious that their own lives must be spent combating the troubles of a transition period. This book, however, is thought-provoking and aggressively intelligent.

Professor Virgilii professes statistics at Siena. His little book is one of the well-known "Manuali Hoepli," and it is clearly intended as a text-book for Italian students, rather than for the foreign reader. It is, therefore, no reflection on him to say that the ordinary English reader will find it rather dull and difficult. There is a great wealth of quotation from authorities, most of whom are little known here, a number of figures, and a very large and technical section dealing with Italian law. The descriptive paragraphs are rather disappointingly scanty, and one gathers the impression that the author has not the strong and clearly thought-out views on the movement as a whole which

impress us in the two French books. But Italian co-operation is exceedingly involved and the data have never been satisfactorily collated, so that this text-book will be of great value as a book of reference in any library frequented by students of the movement.

After laying down the last of these three interesting monographs we are left as we began, with a feeling that the movement still awaits its true prophet, and we have a hope that the mantle will ultimately fall upon M. Gide, and that he will put the finishing touch to his work by giving us a true analysis of the part which co-operation can properly fill in the modern world's complicated economic system.

LIONEL SMITH-GORDON

Capital and Steam-Power, 1750–1800. By JOHN LORD, Bachelor Scholar of Christ's College, Cambridge. (P. S. King & Sons, Ltd. Pp. viii + 253.)

A PROPHETIC sense of the destiny of their steam-engine led James Watt and Matthew Boulton to preserve not merely the documents relating to the invention itself, but also the business records of their partnership from its earliest days. Between 1775 and 1780 all letters directed to customers were copied by the hand of James Watt; and after 1780 a transfer of correspondence was made into letter-books by means of the copying press, which the inventor had devised to save himself this toilsome process. The result is a unique collection of business records extending from 1775 to 1850, housed partly in the Municipal Reference Library, and partly in the Assay Office, of the City of Birmingham. This valuable source for the economic historian has hitherto attracted small attention, and hence Mr. Lord could come to it from Cambridge with something of the feelings of a pioneer. His object was to study the stages in the application of steam-power to the principal industries and so to throw further light on the developments conveniently connoted by the term Industrial Revolution.

But before we are allowed to drink of these new springs of knowledge we are obliged to traverse with our author some seventy arid pages strewn with ossified scraps of information concerning the growth of capital, industry and population before 1750—dropped, as it were, by earlier and, for the most part well-known explorers. There follow a clear account of James Watt's invention, of his partnership with Boulton, of the sources from which the new firm obtained its capital, and finally, a

description of the penetration of industry by the new power—all from original sources and well documented.

In a series of tables we are shown the distribution by counties and by trades of the engines erected by Boulton and Watt in England between 1775 and the expiration of the engine patent in 1800. During the first ten years, of a total of 66 reciprocating engines, no fewer than 22 were for copper mines, and 17 for ironworks; and considerably over two-thirds of the total horse-power provided went into these two industries. But in 1781 Watt took out his patent for converting the to-and-fro action of the piston into rotary movement by means of the Sun-and-Planet: hence during the decade 1785–95 most of the engines erected were of the rotative type. Of a total for England of 144, 47 were for cotton-spinning, and 4 for the cotton-finishing processes; 22 were for collieries; 11 for breweries; and 11 for canals. During the last five years of the patent, when 79 engines were constructed, 35 went to cotton mills, 7 to woollen mills, and no more than 5 to any other single industry. Broadly speaking, then, the technical revolution produced by steam-power began in mining and iron-making and reached its greatest intensity, ten years later, in the cotton industry. Over the quarter of a century surveyed by the author, 92 engines were erected for cotton mills, 36 for ironworks, 34 for collieries, 23 for copper mines, 20 for canals, and 18 for breweries—out of a total of 321 engines built in the British Isles.

Mr. Lord is certainly right in remarking that at the beginning of the nineteenth century the use of steam-power was neither universal nor extensive. Possibly, however, it was somewhat more widespread than the reader of his book would imagine. An estimate on p. 151 gives the number of engines of the Newcomen type working in 1775 as 130. But it is highly probable that this increased during the following twenty-five years. Moreover, the piracies of the Watt engine were by no means few: according to Robison, Boulton and Watt did not trouble to prevent the erection of many engines which were probably infringements of their patent. We do not complain that the story of Bull and Hornblower is not retold, but it should have been made clear whether engines constructed by these men, and subsequently made to pay tribute to the Soho partners, were included in the statistics. John Wilkinson, formerly an ally, almost a partner, quarrelled with the engineers and sold several engines to his own customers Has account been taken of the thirty engines thus piratically erected? We suspect not;

for, though the illegalities of Wilkinson fill many folios in the Letter-Book of 1795, Mr. Lord makes no mention of them. In that case the number of engines used in the iron industry, in particular, should be increased substantially. Finally, though it is no part of Mr. Lord's task to consider the history of steam-power after the expiration of the patent in 1800, the reader might have been reminded that this year marks the beginning of a period of rapid expansion. Ironfounders up and down the country began to supply the means of power: between 1802 and 1808 Richard Trevithick alone erected a hundred high-pressure engines, and by the beginning of 1824 the total number of engines proceeding from Soho itself had reached 1164.

Mr. Lord gives the impression of youth: he comes to his task trailing clouds of generalisations from the lecture-room, and sometimes these impede his steps. Twice he tells us that Watt was no business man. Does he say that because it has already been said by Smiles, or Taussig? The impression left on another who has read through most of the Letter-Books is that Watt possessed considerable shrewdness in business affairs. And certainly if a right sense of the value of money is an important ingredient in a man of business, Mr. Lord's own account of Watt's bargains with Boulton show that the inventor was by no means unbusinesslike. In the concluding chapter almost all the discredited dicta on Capitalism are repeated. We are told that steam-power "completed the breach between employer and employed—they were separated completely. A capitalist class had been evolved and admission to its ranks could only be obtained by accident." If so, accidents were happening with such frequency as to imply design, and in such a chaos of uniformities the word "accident" becomes meaningless. Again, "The development of free competition meant the development of disregard for motives of religion, patriotism and sentiment." And yet the men whose names appear in these pages are James Watt, Matthew Boulton, Josiah Wedgwood, Samuel Whitbread, Richard Reynolds —the Quaker ironmaster, who, if any man, surely exemplified the authoritative definition of religion, "to visit the fatherless and widows in their affliction, and to keep himself unspotted from the world." Perhaps, it may be replied, these men were exceptional. Outstanding, certainly; but if religion, patriotism and sentiment were really disregarded by the industrialists, who built the Nonconformist chapels, formed the volunteers, and conducted the anti-slavery campaign? Once more, we are told that "honourable capitalists, like Wedgwood and Boulton, left

to prosperity (*sic*) . . . the burden of poverty, which rested heavily on the lower classes, and the doctrine of exploitation, which placed the lives of the poor in the hands of their economic overlords." One imagined it was now recognised that the troubles of the early nineteenth century were mainly due to war; and that, depressed as they were, the workers in the capitalistic industries were never reduced to the wretchedness of the hand-loom weavers and nail-makers, who had the privilege of supplying industrial capital and of bearing some of the risks of production. Was it really Capital and Steam-Power that were to blame?

The pity is that Mr. Lord troubled with conclusions. His study of the application of steam to industry is a useful piece of research. But in a few pages he could have given a list including every engine erected by Watt between 1775 and 1800, with a statement of its purpose and date of erection. This, indeed, he does for the first seven years. If he had continued the list we would willingly have foregone the generalisations, and his book would have become a permanent work of reference for all who are interested in the early days of modern industry. He must possess the data. Will he not print them for us elsewhere?

T. S. ASHTON

Economics for Helen. By HILAIRE BELLOC. (London: J. W. Arrowsmith, Ltd. 1924. Pp. 246.)

THIS little book, which is intended to make economics intelligible to a girl of sixteen, combines some exposition of elementary principles with a good deal of Mr. Belloc's own views on current economic questions. The treatment of production, distribution and exchange is fresh and attractive, and the Ricardian theory of rent is well explained, but it is surprising to find the Law of Diminishing Returns applied without distinction to all capitalist enterprise.

Occasionally the lucidity adapted to the understanding of sixteen changes rather abruptly. It is difficult, for instance, to discover what use a beginner can make of such statements as: "Interest on money does not really exist. It is either interest on Real Capital (machines, stores, etc.) for which the money is only a symbol, or else it is usury" (p. 39). Helen is no doubt intended to be disturbed by the chapter which foreshadows the end of our order by the progressive soaking up "of wealth which men produce into the hands of those who lend the money." The chapter on "Economic Imaginaries" might puzzle an older

reader. Modern Banking is more intelligible, but suffers from inaccuracies. We imagine that enterprising young men of business —if they should hear of this book—will write to Mr. Belloc to press him for an introduction to those bankers who lend money "on all sides" without asking for security. It is not the risks involved in this practice, however, which alarm the writer, so much as the formidable power conferred on the bankers, who can place their credit where they choose, and so decide which of two competitors shall be allowed to survive. It seems to be purely a matter of personal predilection.

After that it is not surprising to hear that the workers can earn their living only by permission of the capitalist, though there is no hint that the employer cannot make his profit without the consent of organised labour. Mr. Belloc finds no redeeming feature in our capitalist organisation. He compares it with the "Servile State" of the ancient world, with an imaginary "Distributive State" (the name is his own invention) where the workers own the instruments of production, and with the Socialist State. The last mentioned he condemns as impracticable owing to its incompatibility with very widespread human emotions, though elsewhere he has no doubt that governments would, if entrusted with the business of production, accumulate the necessary reserves quite as successfully as private employers. The Distributive State is the most natural, and offers the greatest degree of freedom, but it has its special difficulties, and would probably not be able to hold its own in competition with powerful Capitalist States. There is no indication as to the kind of State which might be *both* desirable and capable of survival. On the whole this very readable book is interesting as affording some insight into an original mind rather than useful as an introduction to Economics.

H. REYNARD

The Birthright of Man. By HENRY LOWENFELD. (London: Leonard Parsons. 1923. Pp. 160. Price 5*s*.)

Industrial Unrest. Its Cause and a Suggested Cure. By T. B. MILES. (London: Heath Cranton, Ltd. 1924. Pp. 96. Price 2*s*. 6*d*.)

HARDLY a week passes without some publisher issuing yet one more analysis of our industrial "system," yet one more prescription for improving the relations between "Capital" and "Labour" (whatever these terms may mean). These two books belong to this rapidly increasing class. They have, however, one common feature, which distinguishes them from many

of their fellows. The motive to which they appeal is the motive of self-interest. They hark back to the old Benthamite attempt to extract golden conduct from leaden instincts. "The selfishness and self-interest of man," says Mr. Lowenfeld, "can always be fully relied on, and if the well-being of a community can be based upon them, it will repose on a really solid foundation." Mr. Miles feels that "a new theory of industrial relations is wanted, which will commend itself to the British school of economists, lineal descendants of Adam Smith and Ricardo."

Mr. Lowenfeld's proposals for dealing with our present economic troubles are delightfully simple. The trade and industry of the country, when taken as a whole, are insufficiently equipped for finding lasting employment for all willing workers. How can the indispensable additional working opportunities be created *without interfering with existing trade* (which in Great Britain, Mr. Lowenfeld might note, is mainly for export)? Quite easily. A country is a self-enclosed, complete economic entity (Great Britain, for instance?), and is capable of being organised on business lines. Statistics must be collected (1) of the fair average requirements, and (2) of the actual consumption of all people living in a country. The difference between the two sets of figures will reveal a shortage of both production and consumption, created by the great masses, who do not earn sufficient to enable them to buy what they need. To supply this shortage and simultaneously to give full employment to all desiring it, new enterprises must be established, on the basis of the collected statistics. The question of finance is simple. The immense power (a power not fully realised before the publication of *The Birthright of Man*) created by the savings of the people, which at present accumulate in Banks, is capable of providing every willing worker with a satisfactory existence and a safe future. More than half the sums represented by bank deposits bankers can safely place at the disposal of those who direct the new developments. This they will do without any State compulsion, once they realise the importance of providing permanent and profitable employment for all those who are in need of it. There will be little risk, for it will be spread over a broad surface, and failure in one direction will be made up by profits in another. Once the enterprises have become well established, the bank loans will be converted into Stock Exchange securities and disposed of to investors. In all this the Government will merely act as a regulator, interfering in no way with private enterprise or the private ownership of capital. It will occupy itself merely

with the collection and publication of statistics, by which the necessary average supply and demand for labour can be foretold years ahead, and all likely exigencies calculated and provided for, long before they arise. Mr. Lowenfeld claims for this scheme that while it solves our present problems, it alters as little as possible, gives full scope to individual development and requires no sacrifices.

Mr. Miles is a little less naïve than Mr. Lowenfeld, has a much firmer grasp of economic theory, and writes with far greater clarity and vigour. Mr. Miles holds that industrial conflict is an inevitable result of our present "system" of industrial organisation—and for two reasons: (1) the suspicion and ill-feeling arising from the concealment of the actual gross profits of concerns as well as the capitalist's actual nett share in them, and (2) the fact that the contract between employer and employed can and will be broken, whenever the sense of justice, on the one side, or the pressure of bad trade on the other, incite to the rupture. Further, the whole wage "system" is based on an extraordinary paradox. The relative wealth of the whole community depends upon the relative poverty of the great majority of that community. The object of Mr. Miles's essay is to inquire whether a system can be invented which (1) may be expected to lead to industrial peace instead of conflict, and (2) shall be based upon a truism instead of upon a paradox.

Mr. Miles proposes a modified form of syndicalism. He imagines a system in which the ownership of all businesses is vested in the labourers who work in them, and in which the financing capitalists are remunerated by contracted interest on their invested capital; in which the labourer, instead of having his labour hired by the capitalist, himself hires the capitalist's capital; in which the residual profits go into the labourer's pockets instead of into the capitalist's; in which the capitalist's interest, instead of the labourer's wages, becomes a cost of production. Such a system, Mr. Miles thinks, would fulfil his two conditions: (1) Industrial conflict would be abolished, because the division of the gross profits between capitalist and labourer would now be automatic, (2) the national prosperity would no longer depend upon the comparative poverty of the greater part of the nation, but upon the abundance and consequent cheapness of capital.

The objections which can be made to Mr. Miles's too simplified analysis and to his constructive proposals are, I think, obvious. Were his scheme ever to be introduced (Mr. Miles himself thinks

a start could best be made with Bank employees ! a class hitherto not distinguished for their numerous strikes) in place of our present industrial conflicts between capitalist and worker, we should have a series of conflicts between the various groups of workers as to the division of the residual profits—if there were any. Mr. Miles's attempt (p. 52) to overcome this objection is not successful. A detailed knowledge of the history of Mediæval industrial organisation might have saved Mr. Miles from writing his ingenious essay.

J. LEMBERGER

Rubber, Tea and Cacao. With special sections on Coffee, Spices and Tobacco. By W. A. MACLAREN. With an introduction by H. ERIC MILLER, Chairman of the Rubber Growers' Association. (London: Ernest Benn, Ltd., 1924. Pp. 334.)

THIS volume is No. 5 in the Resources of the Empire Series, which has been prepared by the Federation of British Industries. Each volume contains a Foreword by H.R.H. the Prince of Wales, which emphasises the importance, alike for a business man, a nation or an Empire, of periodical stocktaking; the series reviews the material resources of the Empire; an imperial stocktaking specially planned to coincide with the British Empire Exhibition. There is also in each volume a General Introduction by Sir Eric Geddes, which again is admirable in its brevity and directness, and which disarms criticism by a ready admission of gaps in the information available, and by expressing a hope that these may gradually be filled in future editions of the series, so that eventually it may become a standard work of reference on all questions of Imperial commerce.

The present volume goes far towards satisfying this requirement. As a " business man's survey of the Empire's resources " in Rubber, Tea, Cacao, Coffee, Spices and Tobacco, it can be recommended not only for the comprehensive and practical manner in which these subjects are treated, but also as containing original material. Mr. Maclaren has collected a great deal of commercial information which had not hitherto been published or had only been available in the records of various Trade-Associations; *e.g.* his sections on the detailed organisation of the Rubber and Tea markets in London, the conduct of Tea sales in Colombo, the marketing of Gold Coast cacao at Accra, or the trade customs of spice-exporting houses at Penang. He has also collected from official sources, and put into each of his geographical sections, many interesting particulars as to the

labour forces employed in the various territories covered by his book, and as to the local organisations, planters' associations, etc., and the scientific research that is being carried out. The statistical information with which the book abounds is also on the whole well-chosen and reliable, though the arrangement is not always satisfactory. There is a special index covering this information, but the general index of rather less than 2½ pages is indescribably poor. The book was hurriedly produced, and there are many obvious misprints which would in the ordinary way have been detected by a proof-reader. We would suggest that when these defects are put right in a later edition, the value of the work might be further increased by fuller and more exact references to the various sources from which information has been drawn.

The whole volume may be described as a record of agricultural effort in various parts of the world, a subject that is always of interest to economists. In the case of each product that is dealt with, there is the same picture of increasing yield and further potential increase in supplies as scientific methods are applied to trees or plants that were growing wild and uncultivated or were crudely exploited by natives. Here and there a long view suggests that the ever-expanding demand for one or other of the products may lead to a shortage. In the case of tea something approaching that position may perhaps arise. But the reverse is generally true, and in the case of the first commodity dealt with in this book, rubber, the treatment of a very important subject is perhaps unduly influenced by the present phase of restricted output.

This question of restriction is certainly of interest at the moment from a market point of view, and as an experiment, on a very large scale, in the adjustment of supply and demand, it deserves careful study. But in a broad general survey of the rubber plantation industry, a proper sense of proportion would rather suggest that restriction should be treated practically as a side-issue, and no time wasted in discussing such ephemeral topics as the price-basis of the scheme. Possibly in years to come restriction will be remembered by the planter mainly because of the valuable experience gained during this period of rest, on questions concerning bark-renewal and the health of the rubber tree in general.

The agricultural examples of the classical economists are generally confined to annual crops, and to live stock, which reproduces itself in a comparatively short time. Mr. Miller in

his able introduction to the volume under review points out that rubber, tea, cacao, coffee, coconuts, cinchona and other products dealt with in the book differ from wheat or cotton or rice in that the trees or bushes do not reach the productive stage for some years. The rubber tree is not tapped at all until its fifth or sixth year, the tea bush takes still longer before it comes into full bearing, the cacao tree only reaches that stage in its tenth or eleventh year.

There is consequently a period of several years during which no return can be expected from a plantation; the risk taken is very much greater than when capital is invested in the cultivation of annual crops, and obviously capital will only be obtained for new ventures of this quasi-permanent nature when the prospect of substantial ultimate profits is very encouraging. The annual and the perennial form of agriculture stand for the short and the long view. Fundamentally their economic problems are the same, but the element of time produces a difference of such importance in actual practice as to suggest that the distinction between the two deserves more attention than it has received. When supply outruns the demand for wheat, an adjustment is effected far more simply and speedily than it can be when the output of rubber is found to be excessive. But when the position is reversed, as must at times occur, and it is necessary to increase the supply of a perennial product, the manufacturer or consumer may be in a difficult position for years while the planter is bringing new areas into bearing. Mr. Maclaren's comments on the present disproportionate cost of planting up new tea lands suggest an interesting line of investigation into a problem of supply which may become important during the next few years.

EDWARD CLEVELAND STEVENS

NOTES AND MEMORANDA

Bibliographical List of the Writings of Alfred Marshall [1]

The following is an attempt to record those of Alfred Marshall's occasional writings and lectures, as well as his published books, which are extant in print, and have some permanent interest. It is nearly, but not quite, complete, only a few items of minor importance being omitted.

I. 1872. Review of Jevons' *Theory of Political Economy*. (*Academy*, April 1, 1872.)

Since the publication of the *Memoir*, the following unpublished fragment by A. M., written about 1897, has come to light :—

"I looked with great excitement for Jevons' *Theory ;* but he gave me no help in my difficulties and I was vexed. I have since learnt to estimate him better. His many-sidedness, his power of combining statistical with analytical investigations, his ever-fresh, honest, sparkling individuality and suggestiveness impressed me gradually; and I reverence him now as among the very greatest of economists. But even now I think that the central argument of his *Theory* stands on a lower plane than the work of Cournot and von Thünen. They handled their mathematics gracefully: he seemed like David in Saul's armour. They held a mirror up to the manifold interactions of Nature's forces: and though none could do that better than Jevons when writing on money or statistics or on practical issues, he was so encumbered by his mathematics [2] in his central argument, that he tried to draw Nature's actions out into a long queue. This was partly because the one weakness of his otherwise loyal and generous character showed itself here: he was impressed by the mischief which the almost pontifical authority of Mill exercised on young students; and he seemed perversely to twist his own doctrines so as to make them appear more inconsistent with Mill's and Ricardo's than they really were. But the genius which enabled Ricardo—it was not so with Mill—to tread his way safely through the most slippery paths of mathematical reasoning, though he had no aid from mathematical training, had made him one of my heroes; and my youthful loyalty to him boiled over when I read Jevons' *Theory*. The editor of the *Academy*, having heard that I had been working on the same lines, asked me to review the book; and though a quarter of a

[1] This list is to be regarded as an appendix to the Memoir of Alfred Marshall, published in the Economic Journal for September, 1924. The dates given are those of publication in each case, not of composition.

[2] In another fragment he wrote of Jevons: "His ungainly handling of mathematics vexed me."

century has passed, I have a vivid memory of the angry phrases which would force themselves into my draft, only to be cut out and then reappear in another form a little later on, and then to be cut out again.[1]

"That article is the first of the kind I ever wrote, and is particularly crude in form. But it contains the kernel of the theory of distribution which I hold to-day: it is based in the first instance on Adam Smith, Malthus and Ricardo, and in the second on von Thünen as regards substance and Cournot as regards the form of the thought. On many aspects of economics I have learnt more from Jevons than from anyone else. But the obligations which I had to acknowledge in the Preface to my *Principles* were to Cournot and von Thünen and not to Jevons."

2. 1873. Graphic representation by aid of a series of Hyperbolas of some Economic Problems having reference to Monopolies. (*Proceedings of Cambridge Philosophical Society*, Oct. 1873.)

3. 1874. The Future of the Working Classes: a Paper read at a Conversazione of the Cambridge "Reform Club," Nov. 25, 1873. (Published in the *Eagle*, the magazine of St. John's College, Cambridge, and afterwards printed separately for private circulation.)

4. 1876. On Mr. Mill's Theory of Value. (*Fortnightly Review*, April 1876.) A defence of Mill against criticisms in Cairnes' *Leading Principles*.

5. 1878. The Economic Condition of America. A lecture delivered at Bristol. (*Bristol Mercury and Daily Post*, Dec. 1878.)

6. 1879. Water as an Element of National Wealth. A Gilchrist lecture delivered at Bristol. (*Bristol Mercury and Daily Post*, March 6, 1879.)

7. 1879. *The Economics of Industry*. By Alfred Marshall and Mary Paley Marshall. (Macmillan and Co.)
1879. First Edition, pp. viii + 230.
1881. Second Revised Edition, pp. xvi + 230.
This book was reprinted 10 times, making 15,000 copies in all.

8. 1879. Pure Theory of Foreign Trade.
Pure Theory of Domestic Values.
These were non-consecutive chapters of the second Part of "The Theory of Foreign Trade" at which A. M. was working from 1869 to 1877. After they had been circulating in manuscript, Henry Sidgwick printed them for private circulation in 1879.

9. 1881. Review of Edgeworth's *Mathematical Psychics*. (*Academy*, April 1881.)

10. 1881. Address on leaving Bristol. (*Western Daily Press*, Sept. 30, 1881.)

11. 1881. Evidence before the Committee on Intermediate and Higher Education in Wales.

12. 1883. Progress and Poverty. Three lectures delivered at Bristol. (*Western Daily Press*, Sept.–Oct. 1883.)

[1] In another fragment: "There is no doubt that I did him less than justice in the review which I wrote."

13. 1884. Where to House the London Poor. (*Contemporary Review*, Feb. 1884. Reprinted separately by W. Metcalfe and Son, Cambridge, in 1887.)

14. 1885. *The Present Position of Economics. An Inaugural Lecture.* Pp. 57. (Macmillan and Co.)
A. M.'s inaugural lecture at Cambridge.

15. 1885. The Present Position of Political Economy. (A letter to *The Times*, June 2, 1885.)
Referring to a lengthy review of *The Present Position of Economics*, published in *The Times* of May 30, 1885.

16. 1885. Theories and Facts about Wages. (*Co-operative Annual*, 1885.)
An account of former Wage Theories and the first published outline of the theory of Distribution developed in *The Principles*.

17. 1885. How far do Remediable Causes influence prejudicially (A) the Continuity of Employment, (B) the Rates of Wages? (A Paper read at the Industrial Remuneration Conference, Jan. 1885.)
This address was printed in the Report of the Conference together with the four following appendices: (A) *Overcrowding of Towns* (on the same lines as his *Contemporary Review* article of 1884, above); (B) *The Interdependence of Industries* (a short quotation from Bagehot's *Lombard Street*); (C) *A Standard of Purchasing Power* (the first appearance of his proposal of an Optional Tabular Standard); (D) *Theories and Facts about Wages* (a reprint of his contribution to the *Co-operative Annual*, 1885, above). This publication (22 pp. altogether) is the most important indication of the progress of his ideas between 1879 and 1885. Extracts from it were reprinted in *Money, Credit and Commerce*, pp. 260–263.

18. 1885. On the Graphic Method of Statistics. (Jubilee volume of the Royal Statistical Society, pp. 251–260.)
This paper contains three important novelties:—
(1) The proposal for the construction of *historical curves*, *i. e.* the grouping together of allied historical curves so as to suggest possible correlations to the eye.
(2) A device for making it easy to see the *proportional rates of increase* on historical curves.
(3) The definition of *elasticity of demand*, which appears here for the first time.

19. 1885. The Pressure of Population on the Means of Subsistence. (A lecture delivered at Toynbee Hall, Sept. 10, 1885.)
No report of it exists, but there is a brief summary of the contents in *The Malthusian*, Oct. 1885. The lecturer powerfully supported Malthusian doctrines, but disappointed orthodox Malthusians by saying nothing in favour of limitation of births. "I understood him to say," the reporter records, "that it would be a calamity if we English, by limiting our numbers, allowed foreigners to have a larger share than ourselves in peopling the world; and there was no need to fear the effects of our prospective increase at home."

20. 1885. Preface to Bagehot's *Postulates of English Political Economy*, pp. v–vii. (Longmans.)

"Had he lived he would have thrown much light on the question how the rapid changes of modern city life may help us to understand, by analogy and indirect inference, the slow changes of a backward people."

21. 1886. Answers to Questions on the Subject of Currency and Prices, circulated by the Royal Commission on the Depression of Trade and Industry. (Third Report, Appendix C, pp. 421–424.)

His proposal for an optional tabular standard is developed and that for Symmetallism is also put forward.

22. 1886. Political Economy and Outdoor Relief. (A letter to *The Times*, Feb. 15, 1886.)

Against undue severity in the administration of outdoor relief and in favour of relief works to meet unemployment. "The pay should be enough to afford the necessaries of life, but so far below the ordinary wages of unskilled labour in ordinary trades that people will not be contented to take it for long, but will always be on the look-out for work elsewhere. I for one can see no economic objection to letting public money flow freely for relief works on this plan." The letter provoked a protest "on moral grounds" from the Rev. J. Llewelyn Davies, who stood up for the straitlaced school.

23. 1887. The Royal Commission on Trade Depression. (A letter to *The Times*, Jan. 18, 1887.)

Expressing general agreement with the Report of the Commission and commenting on some details.

24. 1887. Remedies for Fluctuations of General Prices. (*Contemporary Review*, March 1887.)

This is, perhaps, the most important of A. M.'s occasional writings. It includes his proposals (1) for a Tabular Standard of Value, independent of gold and silver, called "The Unit," to be established officially for optional use in contracts; (2) for a "Symmetallic" system of currency, the unit being made of twenty parts silver and one part gold; (3) for the "chain" method in the compilation of Index Numbers of Purchasing Power. He points out (*a*) that the evils of a fluctuating standard for deferred payments are chiefly of modern origin, but that now they are of overwhelming importance; and (*b*) that bimetallism, even if successful, aims only at curing long-period fluctuations in the value of money, whereas the harm was done by the short-period fluctuations, corresponding to the Trade Cycle, which no metallic system could cure.

25. 1887. A Tabular Standard of Value. (A letter to *The Economist*, March 12, 1887.)

The Economist of March 5, 1887, had been seriously shocked by the *Contemporary* article, and concluded: "The Standard which Professor Marshall proposes is, it seems to us, impossible and impracticable, and to say more of it would be superfluous." In this letter A. M. defends himself, particularly against the misrepresentation that he proposed "The Unit" for use as actual cash currency.

26. 1887. Preface to *Industrial Peace*, by L. L. F. R. Price.

Deals mainly with the rationale of Arbitration and

Conciliation. Mr. Price's book was "A Report of an Inquiry made for the Toynbee Trustees." A. M.'s Preface begins with a tribute to Toynbee.

27\. 1887. On the Theory of Value. (*Quarterly Journal of Economics*, Vol. I. p. 359.)

A short letter answering a criticism by Prof. Laughlin of a passage in the *Economics of Industry*.

28\. 1887. The Theory of Business Profits. (*Quarterly Journal of Economics*, Vol. I. p. 477.)

A Memorandum answering a criticism by General Walker of a passage in the *Economics of Industry*.

29\. 1888. Wages and Profits. (*Quarterly Journal of Economics*, Vol. II. p. 218.)

A Memorandum answering a criticism by Mr. Macvane of a passage in the *Economics of Industry*. See also a short letter published in the *Q.J.E.*, Vol. III. p. 109, disclaiming the accuracy of a paraphrase of his views set forth in the same Journal by Mr. Macvane.

30\. 1888. Evidence before the Gold and Silver Commission. (Appendix to Final Report of the Royal Commission [C. 5512–1], pp. 1–33.)

A. M.'s written answers were submitted on Nov. 9, 1887, and occupy six and a half columns. His oral cross-examination took place on Dec. 19, 1887, Jan. 16 and 23, 1888, and the reports occupy eighty-three folio columns; after which he put in a "Memorandum as to the effects which differences between the currencies of different nations have on international trade" (twelve columns). This Memorandum is a fuller version of "an abstract of my opinions on the complex question of the relation between a fall of the exchange and our trade with countries which have not a gold currency," which he submitted to the Commissioners, in print, between his evidence of Dec. 1887 and that of Jan. 1888. The importance of this Memorandum lies in the fact that it contains a clear enunciation of the "purchasing-power parity" theory of the exchanges between countries having mutually inconvertible currencies.

31\. 1889. Bimetallism. (Letters to *The Times*, Jan. 25 and 31, 1889.)

The first letter repudiates a statement that A. M. was one of those who have "substantially approved the Bimetallic theory"; the second enters into controversy with Mr. Henry Chaplin.

32\. 1889. Presidential Address before the Co-operative Congress, Ipswich, June 10, 1889. (Reported in *The Times*, June 11, 1889; reprinted as a pamphlet by the Central Co-operative Board, Manchester, pp. 32.)

He regarded the Co-operative Movement "as the typical and most representative product of the age, because it combined high aspirations with calm and strenuous action, and because it set itself to develop the spontaneous energies of the individual while training him to collective action by the aid of collective resources and for the attainment of collective ends." The address was a great popular success, but *The Economist* commented that "Professor

Marshall's Address seems to us obscured, instead of brightened, by its sentimental tone. . . . We are entirely friendly to co-operation as a most sensible plan for enabling the public, which buys, to share in the profits of those who sell, and to compel the latter to be honest, but we believe in it because it is based on intelligent self-interest, and not because it will extinguish that powerful motive force." The Address also contained the following characteristic, and double-edged, passage:—"It was common to hear it said that England was divided into two nations, the rich and the poor. He was not sure that it would not be better for the poor if that statement were strictly true. . . . But, unfortunately for the poor, they had to make room among their ranks for a large accession every year of the most stupid and profligate of the descendants of the rich (*loud cheers*), and in return they every year gave over to the ranks of the rich a great number of the strongest and ablest, the most enterprising and far-seeing, the bravest and best of those who were born among themselves."

33. 1890. *Principles of Economics.* Vol. I. (Macmillan and Co.)

1890.	1st edn.	pp. xxviii+754,	2000	copies,	12*s.* 6*d.*	net.
1891.	2nd ,,	pp. xxx+770,	3000	,,	,,	,,
1895.	3rd ,,	pp. xxxi+823,	2000	,,	,,	,,
1898.	4th ,,	pp. xxix+820,	5000	,,	,,	,,
1907.	5th ,,	pp. xxxvi+870,	5000	,,	,,	,,
1910.	6th ,,	pp. xxxii+871,	5000	,,	,,	,,
1916.	7th ,,		5000	,,	,,	,,
1920.	8th ,,	pp. xxxiv+871,	5000	,,	18*s.*	,,

(This edition (1920) has been stereotyped.)

1922.	Reprint,		5000	copies,	,,	,,

The most important changes were introduced into the third and fifth editions. The sixth edition is the first in which the Suffix Vol. I. is dropped.

34. 1890. Some Aspects of Competition. (Presidential Address to the Economic Science and Statistics Section of the British Association, Leeds, 1890, pp. 35.)

The following are the chief sections of this important paper:—

(1) A Study of some forms of Competition in Commerce and of changes in the mental attitude of Economists with regard to it.

(2) The Policy of Protection. The Action of the Laws of Diminishing and Increasing Returns intensifies the evils of Protection in England, but lessens them in America.

(3) Trusts and other forms of Combination. The success of American Trusts has been brilliant, but perhaps not very solid.

(4) Modern Analysis tends in many cases to justify State Control, but not State Management.

(5) Modern Analysis of the motives of Business Competition.

(6) The growing importance of Public Opinion as an economic force.

35. 1890. Proposal to form an English Economic Association. (A circular letter.)

36. 1890. Speech at the Meeting for the Foundation of the British Economic Association. (*Economic Journal*, Vol. I.)

37. 1891. The Post Office and Private Enterprise. (Letters to *The Times*, March 24 and April 6, 1891.)

Criticising the legal monopoly of the Post Office.

38. 1892. *Elements of Economics of Industry:* being the first volume of *Elements of Economics.* (Macmillan and Co.)

1892. 1st edition, pp. xiii + 416. Reprinted 1893, 1894.

1896. 2nd edition, pp. xiv + 432. Reprinted 1898, 1899.

1899. 3rd edition, pp. xvi + 421. Reprinted 8 times.

1913. 4th edition, pp. xvi + 440. Reprinted 7 times.

A final chapter on Social Progress, based on the last chapter of the *Principles*, was added to the fourth edition.

The above editions and reprints represent 81,000 copies in all.

"An attempt to adapt the first volume of my *Principles of Economics* to the needs of junior students. . . . A chapter on *trade-unions* has been added. . . . A few sentences have been incorporated from the *Economics of Industry*, published by my wife and myself in 1879."

39. 1892. The Poor Law in Relation to State-Aided Pensions. (*Economic Journal*, Vol. II. pp. 186–191.)

A plea for a Commission of Inquiry into the problems of State Relief generally before committing ourselves to old-age pensions.

40. 1892. Poor Law Reform. (*Economic Journal*, Vol. II. pp. 371–379.)

A rejoinder to criticisms by Mr. Bosanquet on the preceding article.

41. 1892. A Reply to "The Perversion of Economic History" by Dr. Cunningham. (*Economic Journal*, Vol. II. pp. 507–519.)

Dr. Cunningham's article, which was printed immediately in front of the above, was an attack on the economic history in *The Principles.*

42. 1892. Discussion on Mr. Booth's "Enumeration and Classification of Paupers." (*Statistical Journal*, Vol. LV. pp. 60–63.)

43. 1893. On Rent. (*Economic Journal*, Vol. III. pp. 74–90.)

With special reference to the Duke of Argyll's *Unseen Foundations of Society.*

44. 1893. Speech at the Meeting of the British Economic Association, June 19, 1893. (*Economic Journal*, Vol. III. pp. 387–390.)

On economic motive and Economics' independence of utilitarian ethics,—following an address by Mr. Goschen.

45. 1893. Obituary: Professor Benjamin Jowett. (*Economic Journal*, Vol. III. pp. 745–746.)

46. 1893. Consumer's Surplus. (*Annals of the American Academy*, Vol. III. pp. 618–621.)

A reply to misconceptions about Consumer's Surplus in a paper by Prof. Patten. "In every case," A. M.

here emphasises, "all other things are supposed to remain unchanged; and particular stress is laid on the fact that there is no change in the conditions of supply of any other commodity (say meat), which is a 'rival' to it (the bread), and can partially satisfy the same needs."

47. 1893. Discussion on Mr. Higgs' "Workmen's Budgets." (*Statistical Journal*, Vol. LVI. pp. 286–288.)

48. 1893. The Aged Poor. (A Preliminary Statement prepared for the Royal Commission.)

49. 1895. Evidence before the Royal Commission on the Aged Poor (Report of the Commission, Vol. III. pp. 529–550.)

The examination was held on June 5, 1893, and occupies forty-three columns.

50. 1895. Discussion on Mr. Bowley's "Changes in Average Wages (nominal and real), 1860–1891." (*Statistical Journal*, Vol. LVIII. p. 279.)

51. 1895. The Venezuela Question. (Letter to *The Times*, Dec. 22, 1895.)

A plea for appreciation of the American point of view.

52. 1896. On Cambridge Degrees for Women, 8 pp. 4to. (A Fly-sheet issued to Members of the Senate of the University of Cambridge.)

53. 1897. The Old Generation of Economists and the New. (*Quarterly Journal of Economics*, Vol. XI. pp. 23.)

An Address delivered to the first meeting of the Cambridge Economic Club, Oct. 29, 1896.

"Speaking generally, the nineteenth century has in great measure achieved *qualitative* analysis in economics; but it has not gone farther. It has felt the necessity for *quantitative* analysis, and has made some rough preliminary surveys of the way in which it is to be achieved; but the achievement itself stands over for you."

54. 1898. Distribution and Exchange. (*Economic Journal*, Vol. VIII. pp. 37–59.)

A reply to Prof. Hadley's "Some Fallacies in the Theory of Distribution."

Mainly an essay in method. As regards Prof. Hadley:—"I venture to adhere to the opinion that distribution and exchange are fundamentally the same problem, looked at from different points of view."

55. 1898. The Slow Progress of our Exports. (Letters to *The Times*, Nov. 10 and Dec. 2, 1898.)

He suggests "that we already import from abroad nearly as much tropical and other produce, which we cannot raise ourselves, as we want; and that, as our real income increases, we prefer to spend its growing surplus largely on such personal services as conduce to domestic comfort, recreation, education, etc."

56. 1899. Evidence before the Indian Currency Committee. (Minutes of Evidence taken before the Committee, Part II. [C. 9222], pp. 167–185, and Appendix [C. 9376], Diagrams 64 69.)

The examination was held on Jan. 11 and Feb. 16, 1899, and occupies thirty-four columns.

57. 1899. Memoranda on Classification and Incidence of Imperial and Local Taxes. (Written replies to a Questionnaire circulated by the Royal Commission on Local Taxation. Report of the Commission [C. 9528], pp. 112-126.)

58. 1900. Speech at a Meeting held at the Lodge of Trinity College, Cambridge, Nov. 26, 1900, to consider what steps should be taken to perpetuate the memory of Professor Sidgwick. (*Cambridge University Reporter*, Dec. 7, 1900.)

59. 1901. An Export Duty on Coal. (Letters to *The Times*, April 22 and May 9, 1901.)

"The Chancellor of the Exchequer's proposal to put an export duty on coal . . . is not, as some have asserted, to be condemned on general economic principles. . . . On the other hand, a tax on the export of coal appears to present many technical difficulties; and to be not worth the disturbance it must cause unless it is to be permanent. And, what is more important, it is, to a certain extent, a breach of international comity. . . . My doubts have never been resolved; but I admire the courage of the Chancellor." These letters were reprinted in the *Economic Journal*, Vol. XI. pp. 265–268.

60. 1902. A Plea for the Creation of a Curriculum in Economics and Associated Branches of Political Science. Pp. 18. (A pamphlet printed for circulation to the Cambridge Senate.)

61. 1902. Economic Teaching at the Universities in relation to Public Well-being. (A Paper read at a Conference of Members of the Committee on Social Education, Oct. 24, 1902.)

62. 1903. The Proposed New Tripos. (A Fly-sheet to the Cambridge Senate.)

63. 1903. Discussion in the Cambridge Senate on the proposal to establish a Tripos in Economics and Associated Branches of Political Science. (*Cambridge University Reporter*, May 14, 1903, pp. 772–774.)

64. 1903. Fiscal Policy: a letter to the secretary of the Unionist Free Food League. (*The Times*, Nov. 23, 1903.)

"About thirty years ago I became convinced that a protective system, if it could be worked honestly as well as wisely, might on the whole benefit countries in a certain stage of industrial development, and that set me on the inquiry whether a free-trade policy was wholly right for England. I have pursued that inquiry ever since, and have gradually settled down to the conclusion that the changes of the last two generations have much increased the harm which would be done to England by even a moderate protective policy, and that free trade is of more vital necessity to England now than when it was first adopted."

65. 1904. On a National Memorial to Herbert Spencer. (*Daily Chronicle*, Nov. 23, 1904.)

"There is probably no one who gave as strong a stimulus to the thoughts of the younger Cambridge graduates thirty years or forty years ago as he. He opened out a new world of promise; he set men on high enterprise in many diverse directions; and though

he may have regulated English intellectual work less than Mill did, I believe he did much more towards increasing its utility. He has, perhaps, been more largely read and exercised a greater influence on the Continent than any other recent English thinker except Darwin."

66. 1905. Education and the Classics. (A letter to *The Times*, March 3, 1905.)

In favour of the reformers in the compulsory Greek controversy. Nevertheless he holds that "for several years the child's most educative study is that of words, for he is still too young to make a scientific study of things. . . . Experience shows that he has more to gain from handling words than from any other exercise, perhaps more than from all others put together. The materials for his work come to him gratis and in abundance; and in building with them, he is called on to exert the highest spontaneity of which he is capable. Demands are made on his general intelligence, his judgment, his perceptive sensibility and his taste; and in a greater or less degree he can rise to these demands. He is architect, engineer, and skilled artisan all at once."

67. 1905. University Education for Business Men. (Letters to *The Times*, Dec. 18 and 29, 1905.)

68. 1906. Introduction to the Tripos in Economics and Associated Branches of Political Science. Pp. 16.

69. 1907. The Social Possibilities of Economic Chivalry. (*Economic Journal*, Vol. XVII. pp. 7–29.)

An Address delivered before the Royal Economic Society on Jan. 9, 1907.

One of the best of A. M.'s occasional utterances on social questions: on the two themes, "We have more reason to be proud of our ways of making wealth than of our ways of using it," and "Social disaster would probably result from the full development of the collectivist programme, unless the nature of man has first been saturated with economic chivalry."

70. 1908. Memorandum on the Fiscal Policy of International Trade. Pp. 29. (House of Commons Paper, No. 321 of 1908.)

This Memorandum was written in August 1903, but was pigeon-holed in the Foreign Office unprinted (with the acquiescence of the author), in circumstances described in the *Memoir*, until 1908. See also A. M.'s letter to *The Times*, Nov. 23, 1908.

71. 1909. Rates and Taxes on Land Values. (Letter to *The Times*, Nov. 16, 1909.)

Blessing, on the whole, the proposals of the "Social Welfare Budget" of that year.

72. 1910. Alcoholism and Efficiency. (Letters to *The Times*, July 7, Aug. 4, and Aug. 19, 1910.)

In controversy with Professor Karl Pearson.

73. 1914. A Fight to a Finish. (Letters to *The Times*, Aug. 20 and Aug. 25, 1914.)

An appeal for the moderation of national hatred.

74. 1914. Civilians in Warfare. (A letter to *The Times*, Oct. 28, 1914.)

A "plea for the dissemination of accurate information as to the conditions under which the civil population of a country may oppose the violence of an invading army."

75. 1915. Milk in Germany: the Oversea Supply of Fats. (Letters to *The Times*, Dec. 29 and Dec. 31, 1915.)

76. 1916. The Need for more Taxation. (A letter to *The Economist*, Dec. 30, 1916.)

In support of Prof. Pigou's plea for increased taxation to defray the expenses of the war.

77. 1917. The Uses of Hatred. (Letter to *The Times*, Dec. 28, 1917.)

A protest against Sir Conan Doyle's proposal for the systematic development of hatred against Germany as a political weapon. "To foster hatred as an end would strengthen the position of pacifists, whose noble sentiments seem to me to make for a premature peace which would inflict a disaster almost unparalleled in history on the coming generation."

78. 1917. National Taxation after the War: I. The Appropriate Distribution of its Burden; II. Taxes on Imports—the New International Situation. (An Essay contributed (pp. 313–345) to "After-War Problems," a volume "by the Earl of Cromer and others," under the editorship of Mr. W. H. Dawson.)

A re-endorsement of Free Trade in post-war conditions. "A broad system of Protective duties would deprive Britain of the strength which has enabled her to carry the chief financial burdens of the war, would confer some benefits on particular industries at the cost of much greater injury to the people at large; and would lessen the funds available for paying pensions to wounded men and to widows; and for lowering the present mountain of debt, which may threaten to turn some peril of a later generation into disaster." He favours an income-tax which would exempt savings, would take account of the number of people dependent on each income, and would be steeply graduated.

79. 1919. *Industry and Trade*. Pp. xxiv + 875. (Macmillan and Co.)

1st edition, 1919. 2000 copies, 18*s*. net.
2nd edition, 1919. 2000 copies.
3rd edition (stereotyped), 1920. 2000 copies.
4th edition, 1921. 2000 copies.
5th edition, 1923. 3000 copies.

80. 1920. Premium Bonds. (A letter to *The Times*, Nov. 17, 1919.)

A protest against "a form of State Lottery."

81. 1923. *Money Credit and Commerce*. Pp. xv + 369. (Macmillan and Co.)

1st edition, 1923. 5000 copies, 10*s*. net.

J. M. KEYNES

SANCTIONS FOR DISCOUNT POLICY

1. THE argument of this short note arose out of discussions, in an industrial centre, with persons who were interested in the problem of the application of propositions which were of the nature of advice given by economists to the community. It is therefore mainly concerned with sanctions. A sanction is an influence which induces a person to do something, and its application depends on (*a*) the knowledge by some persons that it can be done, (*b*) the extent to which that knowledge has reached other persons engaged in practical affairs, (*c*) the willingness of the latter to take the trouble. The question raised in a recent volume, *Is Unemployment Inevitable?* * must be answered to a great extent from the point of view of sanctions. By analogy, the question whether sickness is inevitable is not merely one of the stage which has been reached by medical science, but of the willingness of persons or organisations to adopt or enforce precautions; and unemployment is comparable rather with sickness as a whole than with any particular disease. Yet sickness has been reduced by the successful attack on some large diseases; and industrial fluctuation is a large economic disease. There is nothing similar to a Ministry of Health which can enforce precautions, so that there is a gap between economic advice and its application.

2. It was impressive to find that to a large extent the economic propositions were simply not realised. To how many bankers, for example, has the proposition regarding discount policy permeated so as to create a consideration of bank policy in this matter at all? Have many public authorities given any attention to the question of regularising their demand for goods? If, as I think, not, are the economic propositions too general, or do they take too little account of the administrative facts, or do they ask particular persons to do at their risk what they do not ask other persons to do also?

3. In his contribution to the volume referred to, Professor Pigou has restated the pros and cons of economic advice, and this paper relates mainly to two of his propositions. The first is that "to ask a Central Bank to frame its discount policy with a view, not at all to the safety of its reserve or the profitableness of its business, but exclusively to keeping prices steady, is to invite a private institution to act wholly for public ends." The second, that "until the gold standard has been re-established,

* Reviewed above, p. 602.

more elaborate improvements in our monetary system are not practical politics." As regards his argument on the regularising policy of public authorities, I discussed this question, after private inquiries, in a recent number of *Economica* (January 1923); the administrative difficulties appeared serious, apart from the question of knowledge of the proposal, and it is discount policy that is now the main form of economic advice.

4. The questions to which the proposals for a discount policy give rise are two: first, the sanctions which are possible; second, the relation of such a policy to an analogous policy pursued by any body of organised producers.

5. The sanctions must be found, as one alternative, in the willingness of bankers to do, in the public interest, what they would not do in their own interest alone, and to bear on their own profits the consequences of doing it. The banks do, in fact, raise the rate of interest as industry recovers from a depression towards a boom; they are advised to raise it more rapidly and effectively, and to bear the consequences to their profits. In the other alternative, the sanctions must be found in some control over bank policy which either exists and can be developed, or which must be created.

6. But this must raise the second question, whether the proposal to moderate a rise in prices through the rapid increase of the price of money is one that has any analogy in case of the producers of other things than credit. If it has, it is plain that the problem of sanctions in the former alternative is a more difficult one, since bankers are being specially selected for an advice regarding the conduct of their private business, and specially criticised if they do not accept it. If a rapid advance in the price of any other fundamental goods or services will act so as to prevent the rise of general prices from going so far as it would go with a more gradual initial advance of the prices of these goods or services, then the problem of voluntary sanctions is widened, and its special application to bankers made more questionable. If sanctions can be imposed by a control, that will then be rather because such a control can be imposed on bankers more easily than on other private organisations, than because bankers ought specially to be subjected to it.

7. Influences acting on money and those acting on goods and services are generally opposed to each other in their effect on prices. But what is being discussed is something more than normal changes. It is the practical question whether changes which are to be deliberately made abnormal, or disproportionate to market conditions, as regards the price of either credit or

certain other things, would not in either case impede the expansion of production. That expansion obtains its impetus through gradual changes in which all goods and services react on each other; but the deliberate placing of the cost of some service on a basis in advance of that which the others have reached, may simply create a restriction of industrial expansion, whether the service so interfered with is money or anything else. It does not matter whether the operation is precisely the same in all cases; provided this is its effect, then the sanction of the public welfare is one which has a wider reference than bank policy alone.

8. It is in the interests of employment that the discount policy is to be used. Therefore it is the final incidence on manufacturers of that policy that is important; if an analogous policy with regard to any other services or goods is comparable with discount policy, it will only be because it will have an incidence tending to the same result.

9. All the costs of producers do not rise together as trade becomes active; there are fixed charges, and a time-lag in other charges, such as wages and transport. Therefore if producers are not to be subsidised by rising prices, some other charges must increase out of proportion to the increase in the prices of final products; that is to say, must be rapidly advanced to a level which would, in the absence of a policy, have been reached only at a later stage. The advance of these charges is not a subsidy to the producers of the service or goods concerned, because, if it succeeds in its aim, it is going to arrest the expansion of the market as a whole. They would not, in their own interests alone, have made such an advance, but some less and more gradual advance. Thus, when the German coal cartel cancelled contracts which were to rise from 14 to 20 marks per ton, and substituted an immediate basis of 17 marks, it accepted the effect on its own dividends of this attempt to stabilise the market.

10. While the important result is the incidence on producers, it is reached through influences on their market, whether they sell direct or through merchants. So far as merchants discharge simply a distributive function, their loans are part of their costs, and are charged forward; but the influence on prices is very small. So far as merchants engage in speculation, and withhold stocks for a rise, the interest on their loans is a charge on their profits, and an increase in interest has a more considerable effect. A rapid increase in interest therefore induces them to turn towards the distributive function, and producers are less called on to satisfy an apparent demand, which is the demand of merchants

for stocks. At the same time an increase in interest affects producers themselves, not merely in the cost of loans to finance purchases, but in the rate they must pay on bonds if they wish to finance extensions of their business.

11. If it is the price of some other fundamental service or commodity that is in the same way advanced, a check is put on the expansion of production in those early stages of the boom when it gathers momentum. An increase in the price of coal, deliberately made for this purpose, in excess of the increase which would gradually have taken place, will discourage the market, whether directly or through merchants. The scope of speculation is restricted when the market is quickly advanced to a high basis of prices. It is in the gradual rise that both speculation and the psychological influences on producers and consumers have their opportunity.

12. It is only after events which show what advance in the cost of a fundamental service would be sufficient to retard effectively the expansion of the market. The increment which is desired in that cost, beyond the rate which at any stage it would have reached in the absence of any policy, is related to some future prices which it also helps to create. In the study of fluctuations and their remedies, the backward view has to allow for the uncertainty of those who have to take the forward view. The sanction of the public interest can ask only for some increment in charges, deliberately imposed in order to head off speculative tendencies by giving them a handicap to overcome.

13. An attempt to make an analogy between charges for loans, and for any other necessary factors of expanding production, may appear to be strained, and to be working against a fundamental opposition between monetary conditions, and conditions which apply to what is measured in money. But we are here dealing with money in its use as capital. Rising prices tell against those who use money for expenditure, without an offset in its capitalist use. But the lender receives back at a later stage money which, employed as capital, has appreciated in price; or otherwise, the expansion of industry enables him to purchase a long-term fixed interest-bearing security at a lower price. The borrower has taken the risk of the course of prices, and is it quite correct, if the event shows an increase, to take the backward view, and charge him with a real rate of interest that is above the borrowing rate? The price of loans becomes an increasing charge on producers and merchants who have continually to replace them, as they have to replace other factors of production.

14. Further, the incidence of an increased charge for loans may seem to be so much heavier than that of an increased charge for any other single requisite, that an analogy fails. But the restrictive effect depends not on the average incidence, but on the incidence where it is heaviest. In the case of discount, that point is mercantile speculation; in the case of anything else, it is the processes where it is demanded in an unusual degree. The average effect even of discount policy is filtered through the proportion of trade which is mercantile, the proportion of that which is speculative, and the proportion of speculative stocks which is financed by loans.

15. If, then, the cost of other factors than credits could be advanced so as to restrict the expansion of the market, the selection of bankers for this policy is the special application to them of a sanction which has a wider scope. It is implied that they ought to be more influenced by a view of the public welfare than other organisations also engaged in making profits. If the production of coal were as much centralised as that of credit, and its administration also as highly localised; and if the Government had close relations with one of the administrations, then the sanction of the public welfare could be urged in relation to that commodity, as, in fact, it has been in the case of the great cartels. Is it not the power, resting on the nature of an organisation, to exert a great influence quickly, rather than a unique obligation to do so, which has attached this sanction to the bankers? If so, this sanction becomes very arguable from their point of view. Is there any other sanction which has a more special application to them?

16. It is now assumed, as a matter of fact, that this country intends to restore a gold basis of currency. Without discussing its merits it is, in fact, the tendency of policy. There will be some fiduciary issue, and the conditions of the Bank Act relating to that are practically obsolete. If it is given a definite maximum, a control over policy will exist, the extension of which, by slight amendment, would create that extra influence on market conditions which is sought for. If the Government could require, on short notice, a reduction of the uncovered issue, the Bank would have a choice between two courses. It could withdraw currency against the outside sale of securities; or it could exchange securities for either gold or notes between its own Issue and Banking Departments. In either case, the Bank ratio is diminished, by the latter method more than by the former. This influence on discount would be over and above that which was already due to

ordinary grounds of bank policy at such a time; and what is desired is some increment of this kind. Of course more effective currency policy than this can be devised; this suggestion for a sanction is based on the assumption that it is the gold standard which is to be operated, and not a new system of currency regulation. It is not a very elaborate change in the operation of the gold standard if and when attained; and even pending its attainment it is possible to apply it.

D. H. MACGREGOR

THE ATTACK UPON THE ORGANISER CLASS

THE most important feature in post-war industrial development has been the acceleration of the pace at which capital is becoming an entirely impersonal force, and the place of the old-time capitalist as a director of industry is being taken by a class of expert organisers; who are not themselves capitalists, but who collect and employ capital, very much as they collect and employ labour, often taking as little of the risk of capital loss as does the labourer.

This functional separation between the organiser and the capitalist naturally results in a parellel division of the proceeds; capital is now visibly taking only interest plus payment for risk-taking, whilst the organiser—whose ability has made the "profits"—receives those profits.

The receiver—or supposed receiver—of profits has always been looked upon by the rest of the community as the blood-brother of the receiver of stolen property, he has always been suspect, and always under fire, though his foes have not always recognised what it was they desired to attack.

The Co-operative movement has frequently been represented as directed against Capitalism, and its political alliance with Socialism is based upon the presumption that the objectives of the two movements are identical. Co-operation is, however, essentially a capitalistic scheme; its members subscribe capital at fixed rates of interest—are capitalists—and their real objective is not the despoiling of the capitalist (they themselves take interest plus payment for the risk borne), but the annexation of the remuneration of the organiser profits. The Co-operative movement refuses to recognise the organiser's ability as a separate and necessary factor in modern production, and therefore, consistently, it proposes to distribute as "divi" the profits which under the present system the organiser takes as his share. That is, it holds that profits are an addition to the price charged to

the consumer, and not a deduction from the marginal supplier's cost.

On the other hand, Socialism is a genuinely anti-capitalist movement, aiming at the State ownership of land and capital. In practice and in theory, therefore, Socialism has room for the expert organiser though not for the capitalist. His remuneration might be styled "salary," might be distributed other than in currency notes, but the supremacy of the organiser in the Socialist scheme would, in practice, involve the sanctity of his remuneration, *i. e.* of profits.

So that on a true appreciation of the position these two movements are but temporary allies; ultimately each is capable of succeeding only as the other fails.

The attack, as so far made, has been met by the institution of profit-sharing schemes, either with or without a sharing also in capital interest. But the minute fractions shared out at long intervals have not solved the industrial troubles, rather these schemes must tend in the opposite direction; for the average concern the idea is of use only in boom periods, and then at the expense of creating trouble for the lean years. In practice frank autocracy, combined with honourable treatment, security and high wages (whether this means high costs of production or not depends upon the efficiency of management), have succeeded in attracting the confidence and support of employees to a far greater extent than schemes of profit-sharing and joint control. It is probable that these schemes represent a temporary phase which will rapidly pass away and be looked back upon with surprise by generations to come.

It may be surmised that the real attack upon the organiser class will not come from either of these directions, but is already working up along quite other lines. It is a curious survival of the days of small industry, when the organiser was his own capitalist, that when industrial difficulties arise they are invariably thought of as conflicts between labour and capital. In fact under present conditions the forces engaged constitute a triangle; capital is usually passive whilst the conflict is conducted between the organiser and labour. Now that labour has its organisers it does not always lose; on the whole, the sweating of the workman, if not abolished, is in process of abolition, and the more serious matter to-day is the sweating of capital, which is still unorganised and relatively defenceless. When the Companies Act originally provided for the annual submission of certified balance sheets to the proprietors, it was presumed that by the perusal of these

and the consideration of the reports presented to them they would be in a position to control the management; but that presumption has long since been falsified. The withholding of detailed accounts of working, the manipulation of stocks and reserves, and still more the formation of Holding Companies, have progressively withdrawn from the capitalist all real knowledge of the use of his capital, and even of its continued existence. Recent events and cases are probably opening the eyes of the more intelligent shareholders, and it is significant that an association of shareholders in one class of industry has prepared a standard form of accounts for that industry. It is very probable that that movement will spread with the appreciation of the fact that the statutory duties of the auditors scarcely entitle the "dogs" to bark in the majority of cases in which watch-dogs are needed; and if capitalists interested in different classes of concerns are banded together in organisations controlled by skilled and experienced organisers (after the analogy of the Trade Unions), it will not be long before they discover that it is not very useful to prescribe forms of account unless you can also control the preparation of the figures which are to be entered thereon. In that event the organiser class will arrive at another crucial stage in its evolution, it will find itself checked on the one hand by Unions of Capitalists, as it is now checked on the other by Unions of Workers.

W. J. Back

Japanese Affairs

1. *The Earthquake.*—Among the events which have occurred since my last report in the Economic Journal (June, 1923), the most striking is the earthquake and the fire which ravaged Tokyo, Yokohama and their vicinities, causing the loss of over a hundred thousand human lives and of property to the value of many billion yen. If we add to this the indirect and immaterial losses, the extent of the damage is beyond estimation. No wonder then that the nation is still feeling the after effect of this great misfortune, although the work of reconstruction is making fair progress.

2. *Finance.*—Never in history since Japan became a constitutional country have Cabinet changes been so frequent as in the last few years. The Yamamoto Cabinet which was formed after the death of Baron Kato lasted only four months (September 1923–December 1923), being forced to resign on account

of a lad obstructing the procession of the Prince Regent. The Kiyoura Ministry which succeeded Yamamato's, after dissolving the Diet in January, resigned in June 1924, being unable to face the three parties united against it. Viscount Kato, who was once our Ambassador at the Court of St. James, and who had led the opposition (Kensei-Kai) for more than ten years, became Premier of the Coalition Government with Takahashi and Inukai, the former leading the Seiyu-kai and the latter the Kakushin Club.

Although the Budget for the fiscal year April 1923–March 1924 was passed without substantial change from what was reported previously, the Budget for the succeeding year was, as a result of the dissolution, the repetition of the previous year in accordance with the clause of Constitution which so enacts in case the Finance Bill does not pass the Diet. The Kato Cabinet is now busy compiling the Budget Estimate for April 1925–March 1926, trying hard to be true to its professions of retrenchment, extension of franchise, and reform of the Upper House. It is rumoured that expenditure is to be cut down by about 200,000,000 yen, thus avoiding a new issue of debt bonds, abolishing offices and diminishing the number of employees.

3. *Trade and Economy.*—The new Chancellor of Exchequer, Mr. Hamaguchi, is a firm believer in economy and thrift, and his energy has been concentrated in passing the Bill for raising customs duties on luxuries. Although he is fighting against high prices caused by steady increase of expenditures (national and local), consumption (public and individual), wages and rate of interest and other factors which make up the cost of production, it will take time before his aim is attained. As the result of high prices and inferior quality, exports are lessened, while imports are ever on the increase.

Year.	Currency.	Exports.	Imports.
1922	1,537,570,000	1,637,451,000	1,890,308,000
1923	1,491,820,000	1,447,749,000	1,987,063,000
1924 (up to July)	1,386,700,000	944,500,000	1,625,100,000

4. *Foreign Affairs.*—The passing of the Immigration Law, prohibiting admission of Japanese labourers by the American Congress, was greatly resented in Japan as establishing an unfair discrimination. However, nothing could be done until the Presidential election is over towards the end of the year.

The negotiation with Russia concerning revision of commercial treaties is still going on in Pekin between Mr. Krakhan and the Japanese Minister Yoshizawa. However, the progress is much slackened on account of difference of views as regards recognition of the Soviet Government and the withdrawal of troops from Sagalien on the side of Japan, faithful observance of past treaties and the giving of fishing and mining concessions by Russia.

The fighting near Shanghai and the conflict between Wu-Pei-fu and Chang-Tso-lin are now absorbing the attention of the whole nation. Both the Government and the people are decided that Japan shall be neutral to every party; but if her legitimate interest in Manchuria is threatened she must take the necessary steps to guard it as a measure of self-protection.

5. *Death of a well-known Economist.*—Viscount Tajiri, who was considered our leading economist, died in August 1923 at the age of seventy-four. After studying at Yale University he came back to Japan and served under Count (afterwards Prince) Matsukata, helping him in financial and economic reforms. He assumed the office of the Vice-Minister of Finance and the Chief Comptroller of Audit for many years, and before his death he was the Mayor of Tokyo. While he was busy in official works he lectured in national and private universities and wrote many books on economic and financial subjects, among which the most well known and popular is *Zaisei to Kinyu* (Finance and Currency), published by Yuhikaku. The first edition came out in 1901, and being revised almost every succeeding year had a large circulation. His *Elements of Economics*, *Applied Economy*, *Treatise on Banking and National Debt*, *Essence of Economic History*, *New Wealth of Nations*, and many contributions to economic journals are also widely read. On theoretical lines he was a believer in freedom of trade, retrenchment in finance and deflation of currency, and practically he carried out many financial and economic reforms and improvements. He thus rendered great services to the country and had the honour of being made a Viscount.

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OBITUARY

MAFFEO PANTALEONI

ON October 29 Italy lost the prince of her economists, MAFFEO PANTALEONI. He died of a heart attack, only a few minutes after concluding an address to the Savings Banks Congress in Milan.

Maffeo Pantaleoni was born on July 2, 1857, at Frascati, near Rome. His father, Diomede Pantaleoni, was a physician and political writer who had taken an active part in the movement for national unity, fighting in particular against the temporal power of the Popes. He had enjoyed the friendship of d'Azeglio and Cavour, and it is said that the latter had so high an opinion of him that "he thought him indispensable for the solution of the Roman Question."

After having graduated in law at the University of Rome, Maffeo Pantaleoni was appointed, at the age of twenty-five, Professor of Political Economy at the University of Camerino. Thence he passed to the University of Macerata, then to the High School of Commerce in Venice, and later to that of Bari, of which he became Director. In 1890, however, he resigned this post, resenting a censure which the Board of the School had passed on him for a criticism which he had directed against the Government. This was the time of the big bank scandals, and Pantaleoni took a leading part in the campaign for banking reform. Indeed it was started by his drawing the attention of Parliament to a secret report on the condition of one of the banks of issue, the Banca Romana. The campaign ended with the failure of the bank and the reorganisation of the system of note issue on the present lines.

For five years he took no part in teaching. During this period, having acted as liquidator of a large joint-stock bank, he was able to write his monograph on *La Caduta del Credito Mobigliare*, which is still unequalled as an economic analysis of the continental type of *banques d'affaires*, a veritable masterpiece comparable in some respects to Bagehot's *Lombard Street*. In 1895 he returned to University life, having received a professorship at Naples. It was only for a short time, however: two years later, having attacked in the Press the Government's policy in the African War, he was placed under disciplinary treatment by the Minister of Education, and Pantaleoni, intolerant of any limitation to his freedom, again

resigned and emigrated to Geneva, where for three years he lectured in the University. He returned to Italy in 1900 as Professor at Pavia, and in 1902 he succeeded A. Messedaglia as Professor of Political Economy at the University of Rome, a post which he retained until his death.

In 1900 he was elected to Parliament as a radical member. This period was the most distressing and painful of his life. Pantaleoni, the champion of banking purity and reform, was accused of joint responsibility for the failure of a Turin bank, and a violent Press campaign was launched against him. Possibly, as he himself believed, this was an act of revenge on the part of those affected by his Banca Romana campaign. He defended himself vigorously, "answering bite with bite"—to quote his own words—and succeeded in proving every charge to be absolutely without foundation. But for many months the fight absorbed all his time, energy and resources: he came out of it almost ruined financially, and his wife, after attempting suicide, became insane. When the situation had been cleared up and the trials had ended with the conviction of the real culprits, he resigned his seat as deputy. "Why did I do so?" he wrote. "From disgust—disgust at the baseness I had seen, and of the calumnies I had seen believed." The troubles of this period undoubtedly embittered his character as a political writer, for his violence in controversy was strangely in contrast with the affectionate and gentle disposition shown by him to his friends and pupils. It is not out of place to mention that his disinterestedness and his conscientiousness regarding money matters were carried to such extremes as to cause him scruples such as but few men are troubled with. Thus, he never decided to publish his profound and fine study on the causes of crises and the symptoms enabling them to be foretold, because, having executed this work as an expert in a case relating to a contract unfulfilled in consequence of the crisis of 1907, he considered that what he had written belonged to the person who, having lost the case, had been condemned to pay for it. And to a pupil who asked his permission to publish the lectures delivered by him at the University of Rome, he replied that no permission from him was necessary. "Faithful to the teaching of F. Ferrara," he wrote, "I know that I have no property in that which I have already sold once to the public, speaking from the University chair and paid by the State."

After the war Pantaleoni was d'Annunzio's Minister of Finance in Fiume; later, becoming an adherent of the Fascista Government, he was appointed President of the Commission for the

Revision of the Budget (a sort of Geddes Committee), and subsequently the Italian representative on the financial commission of the League of Nations for Austria. In March 1923 he was made a senator. His political activities, however, found their principal field in the Press, where his brilliant qualities as a pamphleteer and his combative spirit were able to obtain full scope. "I have never done the work of a politician in the way it is done by others," he wrote, "and as it is well that it should be done by most. For my part I have only found pleasure in continuing, as a writer on political subjects, my task as teacher." It would be a mistake, however, to take this to mean that he assumed professorial airs, placing himself above the fray and confining himself to the impartial interpretation of current political events. This was rather the attitude of Pareto. Pantaleoni, on the other hand, always threw himself into the thickest of the fight, taking up his position resolutely, driving home his attack on opponents, sometimes even in an unfair and merciless manner, delivering heavy blows to right and left, without caring overmuch about the consequences of the frank expression of his feelings. He always desired that the functions of the State should be reduced to a minimum, but that within those limits its power should be absolute. In his later years his opposition to socialism was extended to every form of democracy, to the point of seeming almost to justify the definition applied to him by an opponent of "a reactionary anarchist." He had sometimes a conception of politics which might be termed "conspirational," and frequently imagined that he was combating Jewish, German and, sometimes, English plots. For thirty years he was the Don Quixote of Italian politics—an eager fighter whose sincerity and disinterestedness could be thoroughly relied upon—and it would be unfair to judge his work by the particular nature of the windmills against which he hurled himself. His valuable and really educative contribution to the public life of his country, where politics have often descended to the lowest forms of accommodation and compromise, was his enlightening and stimulating influence, which forced everyone—friends and opponents alike—to formulate problems to themselves clearly, to assume responsibility and take up a definite position with regard to them.

The fame of Pantaleoni as an economist abroad is based mainly on his *Pure Economics* (published in 1889 and translated into English in 1898), which was the first organic treatise in which —in accordance with the teaching of Marshall—the doctrines of the classical writers were harmonised with the new theories of

Gossen and Jevons. It is a characteristic of this work that every proposition is accompanied by the name of the author who originated it, and this practice is followed with such unfailing modesty that an inattentive reader hardly realises the important original contributions by Pantaleoni which the work contains. *Pure Economics* has been the most efficacious disseminator of the theory of utility in Italy as well as in other Latin countries. With the lapse of years Pantaleoni modified several of the opinions expressed in this work, so that he did not desire it to be reprinted, but he never abandoned what constituted its fundamental conception. In the system of economics formulated by Pareto without having recourse to the psychology of the Hedonists, basing it only on indifference curves furnished by observation, he recognised " the most rigorous and also the most nicely constructed theory of economic equilibrium "; but he considered that generalisations had already been carried to the extreme limit, and that what was necessary was to discover the nature and actual form of the functions with which economics deals. He thought that for this purpose the data furnished by psychological inquiry were of great value to the economist, and considered that to disregard them was a sterile act of aberration. Why desire, he asked, to imitate the methods of observation of the mineralogists, the botanists and the zoologists, throwing away an instrument of research which partially compensates the greater complexity of social phenomena? Stones, plants and animals do not speak, but men, when questioned, answer.

His forcible and vivacious style, capable of concentrating a multitude of thoughts into a few words, and the eagerness of his mind ever to be trying itself upon new problems—a quality which rendered the detailed work of revision and co-ordination difficult and almost intolerable to him—served to make him a born writer of monographs, and it is in this form that his most original works are cast. The field covered by these monographical essays is so vast and varied, extending, as it does, from the theory and history of economics to finance and statistics, that it is impossible in a short compass to do justice to the originality of thought which characterises them, and to the evidences of immense scientific, humanistic and historical knowledge which they contain. We must confine ourselves to mentioning a few of their titles: *The Probable Amount of Private Wealth in Italy*; *The Principles by which the History of Economic Doctrine should be inspired*; *An Attempt to Analyse the Concepts of " Strong " and " Weak " in their Economic Connexion* (published in this JOURNAL, June 1898);

The Division of Labour in Male and Female Occupations; Observations on the Attribution of Values in the Absence of Market Prices; The Origin of Barter; A Critical Examination of the Principles of Co-operation, etc.

The greater number of his works were published in the *Giornale degli Economisti*, which he acquired with a few friends in 1890, infusing into it fresh life, and of which he was thereafter joint editor. These writings are collected in three volumes under the title *Scritti vari di economia* (1904, 1909 and 1910). His political writings form five volumes and were published under various titles between 1917 and 1922 by Laterza of Bari. Death overtook him while he was preparing the publication in final form of his economic works, which were intended to form four volumes—two dealing with theoretical subjects, one historical, and one financial and statistical. Only the first volume has been published (*Erotemi di Economia*, 1924), but it is to be hoped that his work was sufficiently advanced to permit of complete publication.

The work of Pantaleoni as a thinker and writer, however, is equalled, if not surpassed, in the opinion of those who have been so fortunate as to be in personal contact with him, by his work as a teacher. To this he devoted all his enthusiasm and ardour; it was in this that he took most pride Teaching, in the discursive and unassuming form which was characteristic of him, furnished an ample field for the exercise of his extraordinary combination of high intellectual and moral qualities. Italian economists are few indeed who are not in some measure his disciples. First among these are Pareto and Barone, who predeceased him by a few months and whom he initiated into economic studies, inducing them to abandon other fields of study for that of economics. As was to be expected in one who boasted of not belonging to any school, regarding them all as "obnoxious syndicates of fools," and who considered that there were only two real schools of economists—those who understand economics and those who do not—his teaching, far from being aimed at imposing ready-made theories upon his pupils, was solely concerned with urging them to think for themselves. His freshness of outlook enabled him to present the oldest questions under aspects which were ever new, and his intellectual frankness led him to express every proposition in the most clear-cut, and sometimes extreme, form, in such a way as to render its passive acceptance impossible, to stimulate in the hearer the desire to criticise, and to fix his attention at once on the *punctum saliens* of the question. If in some cases this habit has led him in his writings to make certain statements which may seem

of too crude and unqualified a nature, this was a sacrifice made by the writer to his mission as teacher. This can but increase the gratitude of his pupils, who to-day mourn the most self-sacrificing and most beloved of masters.

P. S.

With the death of Maffeo Pantaleoni there disappears not only one of the highest personalities of Italian economic science, but a valiant fighter in all the fields of thought and action.

He was the son of the Roman physician Diomede Pantaleoni, who played a prominent part in the negotiations between Cavour and the Holy See, and of a distinguished English lady, educated at Potsdam by a German teacher, and afterwards student in Rome. In 1882 he published his bachelor's essay *The Theory of the Shifting of Taxes*, a first-class work, which is still one of the few classical treatises on this difficult subject. In 1884 followed the work on *The Probable Amount of the Private Wealth of Italy*, full of profound and subtle remarks—the first of a series of Italian writings on this matter. In 1887 he published a very remarkable essay on *The Burden of Taxes*, which marks a new phase in his mental evolution. Indeed, while his preceding works are inspired by the English classical school, and above all by Ricardo, this work showed the evident influence of Jevons. But that evolution is definitely accomplished in his *Pure Economics* (1889), which develops economic theory on the basis of final utility.

After that date Pantaleoni wrote no more formal books, but has been prodigal of activity in a numerous series of academical discourses and articles for magazines, some of which, however, are masterpieces. I may mention specially his excellent paper on the fall of the Italian Society of Credit Mobilier (of which he had been a Receiver); his paper on co-operation (maintaining that this form of enterprise forms no exception to the general economic laws concerning the distribution of wealth); his essay on Masters' Syndicates and Workers' Unions, bringing out the substantial identity of the two organisations; the essay on political prices (imposed by the State, without any consideration of the cost and the quantity of the products or services purchased by individual consumers), and many other papers composing the three volumes, *Various Economic Writings*, and the new collection: *Erotemi di Economia*, of which the first volume has just been published. Finally, he dedicated many essays to the analysis of the economic aspects of the world war—afterwards collected in four volumes.

Exuberant genius, passionate and multiform, sometimes

pursuing the most noble motives against his personal interest, as when he abandoned the chairs of Bari and Naples to strive against the authorities or the Government, or when he refused election to the National Academy of Rome because Pareto had not been elected; sometimes, on the contrary, abandoning science for speculation and business; he was in every moment of his life an incomparable personification of that *instinct of combinations* which his illustrious friend has so largely analysed. Perhaps it was that instinct that prevented him from writing a fundamental work, a *Capital* developed in a conservative sense, or an *Industry and Trade*. Perhaps also his genius was too great to be imprisoned in a book. But the numerous and fruitful truths disseminated in his writings remain a great monument of a singular genius; they are the innumerable sparkles of a fractured star, which will long enlighten scholars everywhere in every field of social investigation.

Like his life, his death also has been noble and glorious. Although aware that he was suffering from a mortal disease, he did not hesitate to leave his home to go to the Congress of the Savings Banks in Milan, where he fell while defending the theses of his report against his critics. So he could very truly have repeated of himself the words of Byron's *Corsair*:

> "Let him who crawls enamour'd of decay,
> Cling to his couch, and sicken years away;
> Heave his thick breath, and shake his palsied head;
> Ours the fresh turf, and not the feverish bed.
> While gasp by gasp he falters forth his soul,
> Ours with one pang—one bound—escapes control."

ACHILLE LORIA

CARLO FERRARIS

IT is with profound regret that I report the death of Carlo Ferraris, Professor at the University of Padua. Born in 1850, he wrote in his youth on questions of public law (in particular on the representation of minorities), and in his old age on questions of administrative law (local government, for instance). But the middle part of his life was devoted to political economy. Some essays on economic questions (1878)—one relating to agrarian conditions in England—were followed by the book, *Money and Paper Money* (1879), developing the theory that the *disagio* of the paper money is not the effect of inflation, but of the unfavourable balance of international payments. His *Principles of Banking* (1892) is a very conscientious and learned

work. His report on the *Industrial Accidents and the Law* (1897) served to promote the Italian legislation on the compulsory assurance against industrial accidents. In the same year he published the book, *Historical Materialism and the State*, containing a very clever and profound criticism of my *Economic Foundations of Society*. But the best fruits of his mind are undoubtedly the excellent speeches and reports on financial and economic questions which he made in the Chamber of Deputies, and later in the Senate. They are a model of lucidity, learning and practical sense, and an important contribution to the legislative progress of our country.

ACHILLE LORIA

RECENT OFFICIAL PUBLICATIONS

Guide to Current Official Statistics in the United Kingdom, Vol. II., 1923. (H.M. Stationery Office, 1924.)

THIS continuation sustains the high character that we have attributed to the first issue (ECONOMIC JOURNAL, Vol. XXXIV. p. 138). As before, subjects are arranged under several main headings, ranging from Agriculture in alphabetical order. Starting from one of these, the statistician readily finds his way by means of subordinate divisions to any topic which he is investigating. Suppose, for instance, that some aspect of infant mortality is the object of his research. The heading *Death Rates* supplies him with the clue, 620; which number is found in another part of the Guide to indicate the Registrar-General's Statistical Review of England and Wales. The exploration of that Review is facilitated by a new apparatus, a "Key" which shows all the passages in which any particular Official paper is mentioned in the Subject Index. In the case before us the one numbered 620 is so mentioned. Our inquirer may thus be conducted to the heading *Infantile Mortality*, comprising numerous subdivisions, with the aid of which he can readily find his way to the particular object of his research. The Guide can be procured from H.M. Stationery Office (through any bookseller) for 1*s*. net., 1*s*. 4½*d*. post free.

Sixty-Sixth Report of the Commissioners of His Majesty's Inland Revenue for the year ended 31*st March*, 1923. [Cmd. 1934.]

THE receipts and other returns for 1922–23 are not directly comparable with the records of former years relating to the United Kingdom. Thus the net receipts for 1922–23, almost

£480,000,000, relate only to Great Britain and the "reserved taxes" of Northern Ireland. Another breach of continuity was caused by the new system of graduation, which does not show the number of incomes between £130 and £160; a number that was in the last year available, viz. 1919–20, nearly 3½ millions.

Report of an Enquiry into Agricultural Wages in the Bombay Presidency. By G. FINDLAY SHIRRAS. (Labour Office, Government of Bombay.)

THIS report is similar in intention and method to that on Wages, etc., in the Cotton Mill Industry noticed in the ECONOMIC JOURNAL, 1923, p. 265. The statistics refer to the period 1900 to 1922 and are mainly based on monthly reports received from a number of districts regularly since 1900. It is rather confusing to find that under agricultural labour is included that of artisans working in rural districts, and very careful reading is needed to grasp the meaning of the terms field labour, ordinary labour and skilled labour and their relation to urban and rural industry. In the classification of occupations according to the Census and in the distinction between various classes of owning or occupying cultivators and labourers some confusion is almost inevitable; but the introduction lacks lucidity in arrangement and description.

A notable increase in money wages took place both in the period 1900 to 1913 and in the period 1913 to 1922; the average daily wages in the Bombay Presidency of field labourers are stated as 3 annas in 1900, 4 annas 9 pice in 1913, and 9 annas in 1922 in Urban Areas, and 2 annas 6 pice in 1900, 4 annas 3 pice in 1913, and 7 annas 3 pice in 1922 in Rural Areas. An estimate is made of the change in the Cost of Living to rural workers, with the result that *real* wages are found to have increased considerably between 1900 and 1914, but to be nearly the same in 1914 and 1922. The details of the changes of real wages since 1900 are too complex to admit of summary; they are well shown in the diagram facing p. 24. Working hours have been reduced during the past decade.

Report on Financial Conditions in Poland. By the RIGHT HON. E. HILTON YOUNG. (Printed by Waterlow & Sons, by order of the Polish Government.)

POLAND was reborn with her economic being shattered by the war. But she has great internal resources; her national

debt is small, and she is not liable for "reparations." Yet her finances are troubled by the fall of the mark; the average value of cost of living, which was in January 1922, 469 (the cost in 1914 reckoned as 1), became in January 1923, 3527, in December 1923, 966,233. Widespread social harm has resulted; one serious result being the scarcity of credit. "Trade and commerce cannot get the credit which they require . . . lacking credit, business languishes." "Depreciation shatters confidence; and shattered confidence produces idleness, extravagance and speculation." The cause of the depreciation is inflation; the number of marks in circulation, which was 240 milliards in January 1922, was over 125,000 milliards in December 1923. The remedy is not simply a currency with a solid basis. For budgetary deficits are the root of the malady. Suppose that, unsupported paper marks having been stopped by law, the Government expenditure continues to exceed the revenue. The necessity of carrying on the Government must inevitably prove stronger than the legal restriction. In the light of these instructive general principles important recommendations are made with respect to Budgetary and Currency Reform, Loans and the reduction of expenditure.

Swedish Reports.

STATENS järnvägar som allmänt affärsverk. Utlåtande och förslag av SOCIALISERINGSNÄMNDEN. (The State railways as a public business enterprise. Report and proposals by the Nationalisation Commission.) Stockholm: Tidens förlag. 1924. Pp. 411.

[The most important railways in Sweden are built and owned by the State. The Commission, appointed by the first Socialist Government, suggests that the State railways should be managed in much the same way as a private enterprise. It is proposed, therefore, that greater freedom should be given to the managers and directors and that the direct influence of the political organs of the State should be reduced.]

Betänkande angående tullsystemets verkningar i Sverige före världskriget. TULL- OCH TRAKTATKOMMITTENS utredningar och betänkanden XXXVI. (Report on the effects of Sweden's tariff policy before the world war. The Tariff Commission Series, No. 36.) Stockholm, 1924. 2 vols. Pp. 365 + 354.

[On the basis of thirty-five preceding volumes, containing investigations into the effects of the tariff on particular industries comparable with Taussig: *Some Aspects of the Tariff Question*, the Tariff Commission draws a picture of Sweden's economic life during the last fifty years, and the influence of the tariff policy. A very full presentation and scientific analysis of the arguments for protection is given in the majority report as well as in the minority report. The conclusion of the former makes for free trade; whereas the latter favours protection, chiefly on the basis that the tariff has reduced emigration and stimulated the import of capital. Some of Sweden's best-known economists have in one way or another taken part in the work of the Commission; hence, the report offers a much greater interest to economists than most similar publications.]

Trading in Grain Futures.

SENATE Document number 110, 68th Congress, 1st Session (Statements of facts condensed).

United States Tariff Commission, Wheat and Wheat Products, 1924.

DIFFERENCE in cost of production in wheat, wheat flour, and wheat mill feed in the United States and Canada.

Senate Committee on Agriculture and Forestry.

HEARINGS on an Emergency Commission to promote a permanent system of self-supporting agriculture.

CURRENT TOPICS

THE biennial meeting of the Australasian Association for the Advancement of Science was held in Adelaide in August. The proceedings of Section G (Social and Statistical Science) are of some interest to economists. Not only was there a considerable improvement in the quality and quantity of papers read before the Section, but the deliberations were noteworthy for the initial steps taken to the formation of an economic society for Australia and New Zealand. Professor D. B. Copland of Tasmania delivered the presidential address upon "Monetary Science and its Reactions upon Australia." This address will be published in the regular volume of the Association, and the following papers are also recommended for publication:

E. T. MCPHEE: "The Drift of Population to the Cities."
C. H. WICKENS (Commonwealth Statistician): "A New Australian Life Table."
A. H. BARCLAY: "The Importance of the Climatic Factor in Forecasting Economic Conditions in Australia."

A number of other original papers will be published in abstract, but it is hoped in future to arrange for the publication of a research volume annually through the projected economic society. It is to be organised in branches in the ten University cities of Australasia and will, in addition to the above-mentioned research work, prepare digests of information upon legislation and administrative decisions of economic importance. A draft constitution for the society was approved by the Section, and preliminary

arrangements have been left in the hands of a small committee consisting of Messrs. C. H. Wickens and E. C. Dyason and Professor Copland, who is provisional secretary.

The second annual Conference of Teachers of Economics and kindred subjects in British Universities will be held at Trinity College, Cambridge, on Jan. 2nd–5th. Any University Teacher who would care to attend, and has not received particulars of the Conference, is requested to apply to the Hon. Secretary, Mr. H. Phillips, at 22 Grosvenor Mansions, Victoria St., S.W. 1. The Conference will particularly welcome the presence of teachers from Universities overseas.

On the occasion of the International Congress on Social Policy held at Prague from October 1st to 4th, 1924, a group of economists decided to found an International Union for Scientific Research in Social Economics, to foster co-operation between all countries in the development of an independent science of Economics based on observation of the facts. Particular attention will at first be paid to the progress of the Labour Movement, the growth of industrial democracy, and of international "solidarity." Centres have been established provisionally by the new association at Berlin, Cambridge, Paris and Rome. The constituent committee includes the following names:

S. Bauer (Bale).
C. Bouglé (Paris).
P. Sargant Florence (Cambridge).
C. Grünberg (Frankfort).
R. Kutchinsky (Berlin).
A. Loria (Senate, Rome).
N. Reichersberg (Berne).
C. Rist (Paris).
R. H. Tawney (London).

Our Greek correspondent writes:—"Hitherto Greece has had several weekly or fortnightly economic journals, amongst others *The Economist of Athens*, *Plutus*, etc.; but good as they were, they were devoted to current topics, and their articles were necessarily limited in length. Everyone felt the need of a larger economic review. This important gap is now filled by the Monthly Economic Review of Greece (*Meniaia Ékonomiké Epitheoressis tes Hellados*), of which M. Agamemnon Kotzozos, a high official of the Greek Ministry of Finance, undertook the

editorship in June. His aim is to endow Greece with something like the *Journal des Economistes*, but with complete doctrinal independence. The three first numbers are very encouraging. They contain articles on the National Bank of Greece by its Governor, M. A. Diomedes; a series of articles by the editor on the working of the capital levy in Greece; two very long articles by Professor Andréadès, on British War Finance and on After-War Finances. Many contributions on questions of paramount importance for Greece, but not without interest for the foreigner, as Greek currants, or the Ottoman Debt, are also noticeable. Statistical tables and notes on current fiscal and economic legislation will complete every issue."

Professor Harald Westergaard, our correspondent for Denmark, has retired from the Chair in the University of Denmark which he had occupied for forty-one years. Professor Westergaard taught both Economics and Statistics; but these duties are to be separated in future. A Professor of Economics has been appointed; and a Lecturer on Statistics may follow. The rules of the University according to which the Professor was elected are interesting. Candidates from all the three Scandinavian countries were invited to apply. For the Danish student can follow without difficulty a Swedish or Norwegian Lecturer, so closely are the languages related. In fact two Swedes and one Norwegian applied. The comparison of the candidates' qualifications was elaborate. Not only were their works examined by a Committee which sat for some months, but also there was an oral competition. The candidates were required each to give three public lectures; two on subjects chosen by the lecturer, and a third, for which the candidates had two days for preparation, on a subject prescribed by the examiners. The application of these elaborate tests has resulted in the appointment of Dr. Bertil Ohlin, Lecturer in the High School of Stockholm. He is the author of a work on international trade, noticed among our New Books.

Professor Edgeworth has been elected a Corresponding Member of the Swiss Statistical Society.

Mr. J. M. Keynes has been elected a member of the foreign division of the Economic section of the Royal Swedish Academy of Science, in succession to Dr. Marshall.

Professor D. B. Copland, lately of the University of Tasmania, has been appointed the first Professor of Commerce in the University of Melbourne, where his task will be to organise the newly-founded School of Commerce.

Dr. Edwin L. Gay, having abandoned the editorship of the *New York Evening Post* and resumed his connection with Harvard University, has been appointed Professor of Economic History.

Professor Edward A. Ross, of the University of Wisconsin, has gone to South Africa and to India for a six months' study of economic and social conditions.

The Senate of the University of London has invited applications (by Nov. 13, 1924) for the Sir Ernest Cassel Lectureship in Commerce, tenable at the London School of Economics. The lecturer will be expected to pay special attention in his teaching either to the Organisation of Industry or to Modern Economic History. The salary of the lectureship will be £450 a year, rising to £600.

The English translation of Knapp's *State Theory of Money*, prepared for the Royal Economic Society, has now been published. Professor Edgeworth's *Collected Papers* are in the press. Fellows, who have not yet availed themselves of their right to obtain these publications on special terms, should communicate with the Assistant Secretary, Mr. S. J. Buttress, 6 Humberstone Road, Cambridge.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

MAY, 1924. *The Census of Production.* A. W. FLUX. A review of Censuses in different countries. *Publicity in Industrial Accounts.* SIR ARTHUR LOWES-DICKINSON. "Labour has yet to learn that more than one pint cannot be obtained out of a pint pot," but the acquisition of this knowledge is much hampered by the absence of information as to the contents of the pot or the division thereof." The consumer, too, should be assured that he is not being exploited by capital exploiting labour. *The Census of Industrial Production in the Netherlands.* E. W. VAN DAM VAN ISSELT. *The Conditions under which* χ^2 *measures the Discrepancy between Observation and Hypothesis.* R. A. FISHER.

JULY. *The Vital Statistics of Sweden and England.* MAJOR GREENWOOD. After 1850 England and Wales advanced more rapidly than Sweden in material prosperity; but Sweden had and has the advantage in respect of mortality at the ages of maximum production. *Enquiry by Sample.* JOHN HILTON. Observations made on samples of the unemployed confirm the presumption that useful results may be obtained from small samples. *Untried Methods of Representing Frequency.* By F. Y. EDGEWORTH. The hitherto almost untried "method of translation" now applied to several examples shows better results than the received method. There is proposed, but not tried, another method related to Bowley's second approximation as forming a "third approximation" (to distributions for which the normal law is a first approximation). *The Census of India.* SIR J. A. BAINES.

Quarterly Review.

OCTOBER, 1924. *Agricultural Facts and Fallacies.* GEORGE T. HUTCHINSON.

The Edinburgh Review.

OCTOBER, 1924. *An Industrial Counter-revolution.* DOUGLAS H. STEWART. With "new tastes and convictions which will lead to a reasoned and resolute popular insistence upon beauty, distinctiveness and serviceability in articles of commerce . . . quantity production would inevitably become obsolete . . . factory after factory in the densely populated districts would close its doors," slums and the evils of Capitalism would be reduced. If some "repetition work" must be retained, it will be feasible to arrange shifts of three or four hours, so that for the rest of the working day the operative may engage in poultry-farming or market gardening or some other healthy, secure and social work.

The Nineteenth Century.

NOVEMBER, 1924. *Imperial Preference: the Free Trader: Objections.* EARL BEAUCHAMP. A reply to arguments used by the late Viscount Long last August.

The Fortnightly Review.

OCTOBER, 1924. *The Tyranny of Trade Unionism.* ARCHIBALD HURD. The country is losing its hold on foreign markets and its skilled workers who are emigrating to freer lands.

The Contemporary Review.

NOVEMBER, 1924. *Notes on American Agriculture.* SIR HENRY REW. The British expert notes the multiplicity, activity and efficiency of the American Agricultural Departments (including the Universities), the wide interest in co-operation, and the general attention to sociological problems. *The Schoolmasters' Position.* STANLEY ROWLAND. Improvements on the Burnham Settlement, which is about to terminate, are demanded. *A Restatement of the Malthusian Doctrine.* PROF. H. MITCHELL. Referring to Knibbs and others in proof of the law of diminishing returns, the writer foresees a period of world-wide scramble for the means of subsistence, followed by a "static" condition like that of the Chinese—too poor to fight.

Journal of the Bankers' Institute.

OCTOBER, 1924. *The Present Conditions for a Return to the Gold Standard.* G. CASSEL. It is possible to make gold a fairly stable basis for the world's monetary system, at least for the next generation.

The Geographical Teacher.

SUMMER, 1924. *The Goal of Commerce.* G. CHISHOLM. The definition of the goal in terms of quantity of goods is supplemented by regard to the true usefulness of the goods and to the "optimum density of population." If the problem of population were generally recognised as fundamental, the co-operation of the ablest minds might lead to similar, though independent, legislation in different countries; just as the labour legislation in the different American States is becoming assimilated through public opinion, without Federal action.

London and Cambridge Economic Service.

SPECIAL MEMORANDUM, No. 7. *Seasonal Variations in Finance, Prices and Industry.* A. L. BOWLEY and K. G. SMITH. The deviations from a yearly average which the seasons show are tabulated and represented as remarkably regular waves for prices, imports, exports and other statistics. Thus, Unemployment figures for twenty-seven years, 1887 to 1913, all show a continuous fall from the end of January to the end of March; after which there is little difference till the end of July. Seven methods of measuring seasonal influences are discussed by Prof. Bowley in Part II.

Indian Journal of Economics (Allahabad).

JULY, 1924. *The Rise in the Rural Standard of Living in the Punjab.* MAURICE DARLING. There has been a great improvement in clothing and housing; but debt has increased. Soon the question how an increasing population and a higher standard of living are to be reconciled will have to be faced. *Maternity and Infant Welfare Work in India as Compared with England.* G. M. BROUGHTON. *Public Finance and Development.* JOHN MATTHAI. *Distribution among the Factors of Production.* CLARK WARBURTON. *The Religious Base in Indian Economy.* B. G. BHATNAGER.

Quarterly Journal of Economics (Cambridge, Mass.).

AUGUST, 1924. *The Coal Commission Reports and the Coal Situation.* M. B. HAMMOND. *Some Fallacies in the Interpretation of Social Cost.* F. H. KNIGHT. "The notion of decreasing cost is a fallacy; competitive price fixation under decreasing cost or increasing returns an impossible situation." "The doctrine of 'external economies' surely rests upon a misconception." *The United States Steel Corporation and Industrial Stabilization.* A. BERGLUND. *Competitive Illusion as Cause of Business Cycles.* T. WARNER MITCHELL.

The Annals of the American Academy (Philadelphia).

SEPTEMBER, 1924. The subject of this month's number is *Scientific Distribution;* dealing with advertising agencies, the art of the sales manager, the statistics of markets, and various topics less immediately connected with buying and selling, such as "the place of Beauty in the Business World."

The American Economic Review (Cambridge, Mass.).

SEPTEMBER, 1924. *Graphic Illustration of the Laws of Price.* N. J. SILBERLING. A study purporting to work out Sir Henry Cunynghame's suggestion that (in Marshall's words) "a long-period supply-curve should be regarded as in some manner representing a series of short-period curves" [ECONOMIC JOURNAL, Vol. II. p. 35 *seq.*, and *Ibid.* Vol. XV. p. 67]. The writer's views on "long periods," "increasing returns," etc., seem not so novel as might be supposed from his references to Marshall; *e.g.* "The long-run or time-demand schedule is a misleading concept which affords no certain results in locating price." "The currently accepted diagrams of 'normal' supply and demand based largely on Marshall's work attempt to jump at a single step from the momentary situation to the ultimate and 'long-run' equilibria." Marshall's use of a "representative firm" is "as misleading as it is superfluous." "We find the usual type of 'normal' supply-curve to be a spurious and illogical construction, even more misleading in its implications than the alleged normal demand schedule."

Recent Developments in British Banking. H. H. PRESTON. *The proposed New Central Gold Bank of Germany.* E. E. AGGER. *The Revenue Act of* 1924. The Act leaves Customs alone and lowers

internal taxation. *Delivered Price Practice in the Steel Market.* JOHN R. COMMONS. *Problems in the Radio Industry.* W. W. CHILDS. The rights of private property are not to be opposed to the claim of the leading Powers to allocate among themselves the best electric waves. "It would not be in the interest of world peace for small nations to have any particularly valuable waves." America ought to have "a clear majority of waves over all competitors. Britannia must not rule these new waves."

Political Science Quarterly (New York).

SEPTEMBER, 1924. *An Attempt to establish the Eight-hour Day by International Action.* H. FEIS. *The Taxation of Real Property in Denmark.* J. WARMING. *The English Working-men and the American Civil War.* An attempt to estimate the attitude of the English workers towards the issues of the Civil War.

The Journal of Political Economy (Chicago).

AUGUST, 1924. *The British Coal Agreement.* JAMES A. BOWIE. The operation of the agreement described in a previous article (April) is reviewed. *Taxation in British Columbia.* S. E. BECKETT. *Agriculture and Price Stabilization*, II. W. R. CAMP. *The Huterian Communities*, II. BERTHA W. CLARK. This community, which after centuries of persecution in various European countries settled last century in different parts of America, is quite the oldest existing communistic institution; if we except monastic bodies. The causes of this permanence are well analysed.

SEPTEMBER. *The Economic Future of our Agriculture.* C. L. HOLMES. *The Federal Reserve Bank Note.* E. E. CUMMINS. *Rate Regulation and Fair Return.* C. O. RUGGLES. *European Currencies and the Gold Standard.*

OCTOBER. *L'augmentation du pouvoir d'achat par la baisse de prix.* YVES-GUYOT. The example of Ford shows the efficacy of low price. *The British Finance Act*, 1924. W. M. J. WILLIAMS.

The Review of Economic Statistics (Cambridge, Mass.).

The Physical Volume of Production in the United States for 1923. E. E. DAY. The increase in the produce of mines and manufactures, whether "unadjusted" or taking account of the normal growth to be expected, was the largest since the war. Agriculture had not so good a record. *The Economic and Financial Progress in Europe.* J. S. DAVIS. The progress in the last ten months has been considerable. Some of the steps, such as the institution of the Renten mark are described in detail.

Bureau of Business Research (Chicago).

SERIES II., No. 9. *A Study of the "Representative Firm" and of Bulk-line Costs in the Distribution of Clothing.* HORACE SECRIST. Statistics of the expenses relative to the sales of 170 retail clothing stores during periods of years following 1916 show these costs distributed approximately according to the normal law of dispersion. "Representative" businesses may be defined as those which do not diverge by more than 20 per cent. from the average ratio, comprising some 75 per cent. of the total number

observed. But it should be noticed that the same stores do not remain "representative" during a period of years. All are not affected alike by periods of increasing or decreasing trade. Other interesting conclusions relate to "bulk-line" costs—a concept introduced by the exigencies of war.

SERIES II., No. 10. *A Seven Years' View of Sales and Expenses of Retail Clothiers*, 1916–1922. HORACE SECRIST. Increase of sales is generally attended with decrease of expense relatively to sales, and conversely. The proportionate changes attending increase and decrease of sales are smaller in large than in small cities.

SERIES III., No. 9. *Expenses, Profits and Losses in the Retail Meat Trade.* HORACE SECRIST. The larger the business the smaller are the expenses of operation in relation to sales. The larger the business the smaller the wage bill per cent. of sales. The greater the business the greater the chance of making a profit. For retailers who made a profit the average rate between Feb. 1923 and March 1924 in 143 "Stores" was 5 per cent. of sales.

Journal des Économistes (Paris).

JULY, 1924. *Les accidents du travail dans les exploitations agricoles.* G. DE NOUVIONS. *La situation de l'agriculture anglaise. . . .* N. MONDET. All the three political parties are censured for their readiness to endanger property by favouring agriculture.

Revue d'Économie Politique (Paris).

JULY-AUGUST, 1924. *Un système de stabilisation monétaire: le régime égyptien.* G. E. BONNET. *La loi économique.* L. BAUDIN. *Peut-on évaluer la population de l'ancienne France.* H. SÉE. No accurate evaluation of the total population in France before the nineteenth century is available. *Ma théorie des crises et les critiques de M. Aftalion.* M. BOUNIATIAN. *Un nouveau projet d'amortissement des dettes publiques.* G. DE F. GERBINO.

L'Économiste Français (Paris).

Among numerous interesting records in recent numbers of *L'Économiste* we may distinguish M. Arthur Girault's statistical description of a certain French commune—Mignaloux-Beauvoir (Vienne)—as it appears in an inquiry made shortly before the war compared with the Cadastre of 1824. The number of proprietors has doubled in the course of a century. The number of properties larger than fifty hectars has diminished; the great part of the loss sustained by those larger properties accruing to properties between five and twenty hectars. The number of plots (*parcelles*) has increased, but not nearly in proportion to the number of proprietors. Hardly any names of proprietors recorded in 1824 have survived. The amount of unused land has greatly diminished. It may be hoped that other sample communes may be similarly examined.

Perfect examples of pure statistical description uncoloured by any political or theoretical bias are found in Edouard Payen's articles on production, price, and other particulars respecting several staple commodities. For instance, within the last six months he has so treated rice, rubber, coffee, artificial silk, cacao, silk, aluminium.

Jahrbücher für Nationalökonomie und Statistik (Jena).

JULY–AUGUST, 1924. *Der rationale Begriff des Wirtschaftmenschen.* H. SCHACK. *Die Sterblichkeit der Aerzte in Deutschland.* The mortality of German medical men at early ages has diminished through the removal of the danger from infection.

SEPTEMBER–OCTOBER. *Das Fundament der Volkswirtschaftlehre. Zur Kritik der Konjuncturbegriffe.* VON MÜHLENFELS. *Zum problem der Steuer überwälzene.* F. BUCHWALD.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

AUGUST, 1924. *Zur Frage des so g. " Vertrauens in die Wahrung."* ALBERT HAHN. The quantity theory and the velocity of circulation are dealt with in connection with the influence of confidence. *Begriff und Wesen der gemeinwirtschaftlichen Rechtsordnung.* L. THAL. *Die Verkehrsgleichung.* J. MARSCHAK. *Studien zu einer quantitaven Geldtheorie.* W. G. WAFFENSCHMIDT. This and the preceding article aim at an exact theory of Money and Trade. *Zur ökonomischen Theorie der Gewerkschaft.* JULIUS MUHLENFELD.

Zeitschrift für Volkswirtschaft und Sozialpolitik (Vienna).

VOL. IV., Nos. 4–6. *Die Wertungstheorie der Steuer.* EMIL SAX. On the application of the modern theory of value to taxation; identical with the article in the *Giornale degli Economisti* for May, 1924. *Manchestertum in der europaischen Versicherungsgeschichte.* HANNS DORN. *Der Staats-banksrott von* 1816 *und die Sainierung der österreichischen Finanzen.* ERICK FISCHER. *Ein Zeugnis der schwedischen Romantik über das Wesen des Geldes.* G. SEDLER-SCHMID. There is presented in a German translation an extract from the huge miscellany which forms the *chef-d'œuvre* of the erratic Swedish genius Almquist (1793–1866). Treating money not only as a commodity, but also an abstraction (" *blosse Idee* "), the original writer teaches (somewhat in the vein of Macleod) the ideality of money. He is aware, however, of the danger of this " Geldidealismus "; which may lead to bankruptcy —a subject on which he has some interesting reflections.

Statistische Mededeelingen Van het Bureau Van Statistik der gemeende, Amsterdam.

No. 73.—Budgets, or at least statistics of the expenditure of 114 families, 82 of official and 32 of work-people, show among other interesting particulars that the proportion of outlay is greater the smaller the total; in the case of the officials at least, for the statistics of the workers are too few to allow of inferences. A fuller inquiry is promised.

Giornale degli Economisti (Rome).

JULY, 1924. *Considerazioni generale sui porti Italiani.* EPICARMO CORBINO. *Schemi teorici e dispersione.* C. E. BONFERRONI. With regard to statistics which diverge from the simplest (Bernoullian) type of sampling, in complicated cases associated with the names of Poisson and Lexis, novel methods of measuring the divergence are proposed.

AUGUST. *Elasticità dei Bisogne, della Domande e dell' Offerta.* U. RICCI. Elasticity of demand having been defined on the lines of Marshall, various forms of demand-curve, linear, convex, concave, or with a point of inflexion, are exhibited. *L'organizzazione aziendale.* VITTORIO ALFIERI.

SEPTEMBER. *Il deprezzamento del marco e il Commercio estero.* C. BRESCIANI TURRONI. *Per la diffusione del grafico statistico.* F. ZUGARO. A study on graphical Statistics.

OCTOBER. *Elasticità . . .* U. RICCI. Elasticity of demand is further discussed and illustrated; and elasticity of supply is noticed.

La Riforma Sociale (Turin).

JULY–AUGUST, 1924. *La comparabilità internazionale delle Statistiche dell' Emigrazione.* C. ARENA. *La crisi olearia in terra di Bari.* A. D'AMORE.

SEPTEMBER–OCTOBER. *Monopolio e Unità Sindacale.* C. ROSSELLI. *I concordati collettivi di lavoro agrario,* 1923–4. F. LUZZATO. *Conserve alimentari in Italia.* G. FRISELLA-VELLA. On the production and distribution of several kinds of preserved meats and fruits. *Per il trattato commerciale con la Germania Gruppo Libero-Scambista.* The Free-traders advocate a commercial treaty as preferable to a Protectionist tariff.

Metron (Ferrara).

JULY, 1924. *Quelques considerations au sujet de la construction des nombres indices des prix et des questions analogues.* C. GINI. This important study demands an appreciation fuller than can be accorded here. *Gli studenti dell' Università di Padova dalla fine del 500* [A.D. 1591] *ai nostri giorni.* M. SARBANTE and others. Statistics of students—*la popolazione studentesca*—classified according to Faculty (*e.g.* "Jurists" or "Artists"), place of origin, and other principles of division.

Revista Nacional de Economia (Madrid).

MAY–JUNE, 1924. This number contains a description of the development of certain Spanish industries since the beginning of the century; also a study on the importance of Italian economy with reference to Spanish interests.

JULY–AUGUST. *La estructura agraria de España.* VIZCONDE DE EZA. Deficiencies in the agricultural system of Spain are pointed out; and there is demanded an inquiry on the model of the British Tribunal, the report of which is praised highly.

Ekonomisk Tidskrift (Stockholm).

NOS. 1–2, 1924. A new edition of Menger's *Grundsätze.* KNUT WICKSELL. Menger's *Principles,* which appeared in 1871, has probably played a dominant part in the development of economic thought during the last fifty years. It meant the foundation of the Austrian school. Menger's son has revised the entire work, following his father's notes; but the second edition contains very little that is new. There is an element of the tragic in the fact that a man of Menger's intellectual capacity should spend such a great part of his life in rather unfruitful methodological dis-

cussions with the historical school instead of pursuing and completing his own work.—*Reflections on the Discussions about Monetary Reform.* DAVID DAVIDSON. The monetary discussion in Sweden has been very vivid in connection with the return to the gold standard this spring. The writer analyses some of the theoretical problems touched upon.—*The Old Age Insurance.* GÖSTA BAGGE. The amount needed should be raised by taxation, not by the insurance method, which leads to the accumulation of enormous funds. The influence of the two methods on saving is discussed.—*The Monetary Problem.* B. G. PRYTZ.

NOS. 3–4. *Temporarily Free Goods.* ELI F. HECKSCHER. Economics deals only with scarce goods and services. Goods produced by scarce factors of production are as a rule themselves scarce. Exceptions to this rule are, however, important. At certain times, many durable instruments of production (fixed capital) exist in so great quantities relative to the present demand for goods, produced with their assistance, that they (*i.e.* the instruments) receive no reward; they, or rather their services, are temporarily free, *i.e.* not paid, the prices of the goods produced covering only the expenses of other instruments. Yet they have a capital value, for in future their services will be paid. Instruments that are not technically up to date may be free goods during a long period, perhaps during their lifetime. Further, in a case of joint supply, certain by-products may be free, *i.e.* command no price, not only temporarily but regularly. Another curious and interesting case, where there is no scarcity, is that of "collective consumption," *e.g.* the lighting of streets; the smallest possible unit of supply is sufficient for the highest possible demand. Thus there is no need for a limitation of demand by prices.—*Reflections* . . . . DAVID DAVIDSON, continued.

NOS. 5–6. *Railway Reforms and Reformers.* KNUT WICKSELL. A discussion of two public reports concerning the organisation and tariff policy of the State railways.—*Some Features of the Last Phase of Federal Reserve Policy.* ARTHUR MONTGOMERY. The inflow of gold has reduced the control of the market, exercised by the F.R. system. On the other hand, steps have been taken to increase the number of member banks, so far, however, without success; *e.g.* the requirements for rediscounting ("eligible paper") have been made easier. The writer discusses the methods of credit restriction during 1920–21. The opposition towards this policy has led to a change in the personnel of the Federal Reserve Board. But the monetary policy does not seem to have been affected by political interests. The last years are characterised by the growing influence of purchases and sales of bankers' acceptances and State bonds, whereas the rediscounting is losing importance. The credit policy also involves changes in the requirements of "eligible papers." Thereby changes in discount rates are made unnecessary, or, when they are necessary, their effects are increased. The credit policy has been guided by direct comparison of the volume of credit and the volume of production. (Classical theory: money versus commodities.) Probably the development of prices has played a great part also, much greater than the reports of the F.R. Board indicate.—*The Financial Position of Italy.* C. BILDT.

NEW BOOKS

English.

ASHTON (T. S.). Iron and Steel in the Industrial Revolution. Manchester: University Press. 1924. Pp. 265.

BAL (KRISHNA). Commercial Relations between India and England. London: Routledge. 1924. Pp. 370.

BERTRAM (ARTHUR). The Economic Illusion. London: Macmillan. 1924. Pp. 388.

BONAR (JAMES). Malthus and his Work. London: Allen & Unwin. 1924. Pp. vii + 438. 12*s*. 6*d*.

[A reprint of the classic first published in 1885; with some additions, especially to the biographical part of the work.]

BOWMAN (ISAIAH). The New World Problems in Political Geography. London: Harrap. 1924. Pp. 630 + 112.

CADDICK (DAVID W.). The Outline of British Trade. London: Harrap. 1924. Pp. 160.

[Described in a sub-title as "a text-book for business men and students of commerce and economics."]

CHARLESWORTH (M. P.). Trade Routes and Commerce of the Roman Empire. Cambridge: University Press. 1924. Pp. 288. 12*s*. 6*d*.

CLARE (GEORGE) and CRUMP (NORMAN). The A B C of the Foreign Exchanges. London: Macmillan. 1924. Pp. 224.

[A revised edition of a well-known treatise first published some thirty years ago, yet not requiring much alteration.]

Coal and Power. A Report of an inquiry presided over by the Right Hon. D. Lloyd George. Pp. 285. London: Hodder & Stoughton. 7*s*. 6*d*.

EDDY (SHERWOOD). The New World of Labour. Allen & Unwin. Pp. 216. 5*s*.

ELY (RICHARD T.). Elements of Land Economics. London: Macmillan. 17*s*.

ENSBORG (HELMER) and NYLANDER (ERIK). Industrial Sweden. Gothenburg.

[An imposing quarto illustrating the various branches of Swedish industry; compiled on the occasion of the Gothenburg Centenary Exhibition from various sources and edited by the above named.]

Family Allowances. Geneva: International Labour Office. 1924. Pp. 186.

FRANKLIN (FABIAN). Plain Talks on Economics. Leading principles and their applications to the issues of to-day.

GRANT (I. F.). Everyday Life on an Old Highland Farm, 1769–1782. With a Preface by W. R. SCOTT. London: Longmans. 1924. Pp. 276.

GRAY (L. C.). Introduction to Agricultural Economics. London: Macmillan. 12*s*.

HIGGS (HENRY). Financial Reforms. London: Macmillan. 1924. Pp. 91.

[The substance of lectures given at the Institute of Bankers (to which reference is made in the ECONOMIC JOURNAL, Vol. xxxv, pp. 146, 147; with the addition of an Introduction and Conclusion.]

IVER (K. V.). Indian Railways (Index of to-day, Vol. II.). London: Milford. 1924. Pp. 131. 3s.

[A clear statement of the present conditions and past history; enhanced by copious statistics and a useful sketch-map. The author's position as an official of the Railway Board guarantees the trustworthiness of his statements, but precludes outspoken expression of opinion on matters of controversy.]

JENSEN (J. P.). Problems of Public Finance. London: Harrap. 1924. Pp. 606.

[The author is a Professor in the Department of Economics at the University of Kansas. The book is an exposition of the problems of public revenue and fiscal policies, and of the various solutions proposed for them, and is intended primarily for use in elementary courses in Public Finance. The theoretical discussion is adapted to those who possess an elementary acquaintance with the general principles of economics, but does not assume an intensive study of economic theory.]

GRIFFIN (C. E.). Principles of Foreign Trade. London: Macmillan. 1924. Pp. 348. 14s.

JONES (ELIOT). Principles of Railway Transportation. New York: Macmillan Co. 1924. Pp. 607.

KNOWLES (PROFESSOR LILIAN). The Economic Development of the British Overseas Empire. London: Routledge. 1924. Pp. 555.

LOWENFELD (HENRY). Money in Fetters. London: Murray. 1924. Pp. 108.

PANT (D.). Business Organisation. Lahore: Commercial Book Co. 1924. Pp. 114.

POWER (EILEEN). Medieval People. London: Methuen. Pp. 216.

[A bright portraiture of representative characters: Bodo, a peasant in the time of Charlemagne, Madame Eglentine, Chaucer's prioress as she was in real life, and so on. The author is Lecturer in History at the London School of Economics.]

RAMSAY (ALEXANDER). The Greater Problems of Industry. Birmingham Journal. 1924. Pp. 134. 3s. 6d.

REES (WILLIAM). South Wales and the March, 1284–1415. A social and agrarian study. Oxford: Clarendon Press. Pp. 303.

ROBSON (W. A.). The Relation of Wealth to Welfare. London: Allen & Unwin. Pp. 176.

SHIRRAS (G. FINDLAY). The Science of Public Finance. London: Macmillan. 1924. Pp. 677.

SPALDING (WILLIAM F.). The London Money Market. Third Edition. London: Pitman. 1924. Pp. 221.

[Fresh details have been introduced into the new edition and figures have been brought up to date.]

STEPHENSON (JAMES). Principles of Business Economics. London: Pitman. 1924. Pp. 406.

TAWNEY (R. H.) and POWER (EILEEN). Tudor Documents. Being select documents illustrating the Economic and Social history of Tudor England. Vol. II. Commerce, Finance and the Poor Law. London: Longmans. 1924. Pp. 369.

THOMAS (S. EVELYN). Elements of Economics. St. Albans: Donnington Press. 1924. Pp. 650.

THOMSON (G. W.). The Grammar of Power. London: Labour Publishing Co. 1924. Pp. 152.

TOWNROE (B. S.). A Handbook of Housing. London: Methuen. 1924. Pp. 178.

Unemployment in its National and International Aspects. Geneva: International Labour Office. 1924. Pp. 228. 1*s*.

[Speeches delivered at a Conference held last March in the London School of Economics.]

American.

BECKHART (B. H.). The Discount Policy of the Federal Reserve System. New York: Holt. Pp. xii + 604. $4.

CROSS (NA. B.). Domestic and Foreign Exchange. New York: Macmillan Co. 1923. Pp. 572.

ELY (RICHARD L.) and MOREHOUSE (EDWARD M.). Elements of Land Economics. New York: Macmillan Co. 1924. Pp. 363.

FIMMEN (EDO). Labour's Alternative: the United States of Europe or Europe Limited. London: Labour Publishing Company. 1924. Pp. 128.

GRAY (LEWIS C.). Introduction to Agricultural Economics. New York: Macmillan Co. 1924. Pp. 556.

GRIFFIN (C. E.). Principles of Foreign Trade. New York: Macmillan Co. 1924. Pp. 348.

HEPBURN (A. BARTON). A History of Currency in the United States. Revised Edition with new chapters. New York: Macmillan Co. 1924. Pp. 573.

JEROME (HARRY). Statistical Method. New York: Harper. 1924. Pp. 395.

JOHANNSEN (N.). A Neglected Point in Connection with Crises. New York: Bankers' Publishing Co. 1908. Pp. 194.

LUBIN (I.). Miners' Wages and the Cost of Coal. Pp. 316. $2.50.

MCKEE (H. S.). The A B C's of Business. New York: Macmillan Co. 1923. Pp. 135.

MELLON (ANDREW). Taxation the People's Business. London: Macmillan. 1924. Pp. 229.

PERSONS (W. M.) and others. The Problem of Business Forecasting. New York: Houghton Mifflin. Pp. xiii + 317. $4.

WRIGHT (PHILIP G.). Sugar in Relation to the Tariff. New York: Houghton. Pp. 299. $2.50.

French.

BOUIGIN (PROF. HUBERT). L'industrie et le Marché. Paris: Alcan. 1924. Pp. 115.

BOUGLÉ (PROF. C.). Le Solidarisme (Deuxième édition, entièrement refondue). Paris: Giard. 1924. Pp. 204.

GANE (ALEXANDRE). La Commercialisation des Entreprises d'État. Paris: Jouve. 1924. Pp. 72.

[The text of the Roumanian Law of June 1924 concerning the control and "commercialisation" of State enterprises; with explanations.]

GANE (ALEXANDRE). Le régime minier Roumain et la nationalisation du sous-sol. Paris: Jouve. 1924. Pp. 214.

GROSSMAN (HENRYK). Simonde de Sismondi et ses théories économiques (une nouvelle interpretation de sa pensée). Warsaw University. 1924. Pp. 17.

[An address delivered at Warsaw, December 1923, on the occasion of the anniversary of Sismondi's birth.]

JAFFÉ (GRACE M.). Le Mouvement ouvrier à Paris pendant la Révolution Française (1789–1791). Paris: Alcan. Pp. 215.

NOGARO (BERTRAND). La monnaie et les phénomènes monétaires contemporains. Paris: Giard. 1924. Pp. 322.

German.

BÖHM-BAWERK. Gesammelte Schriften. Vienna: Holder-Pichler. 1924. Pp. 515.

[A collection of articles, mostly from German periodicals, edited by F. Weiss.]

FALKNER (PROF. G. A.). Das Papiergeld der französischen Revolution, 1789–1797. Schriften der Vereins für Sozialpolitik. Munich: Duncker & Humblot. 1924. Pp. 121.

HOLZ (DR. WALDEMAR). Sind internationale vergleiche steuerlicher Belastungen möglich? (Probleme der Geld- und Finanzwesens herausgegeben von Dr. P. Bruno Moll, Vol. II.). Leipsic: Akademische Verlags-Gesellschaft. 1924. Pp. 78.

LEVY (HERMANN). Die Grundlagen der Weltwirtschaft. Leipsic: Teubner. 1924. Pp. 185.

PLANT (THEODOR). Deutsche Handelspolitik. Leipsic: Teubner. 1924. Pp. 246.

WEBER (MAX). Gesammelte Aufsätze zur Soziologie und Sozialpolitik. Tübingen: Mohr. 1924. Pp. 518.

Italian.

LORIA (ACHILLE). Le peripezie monetarie del dopo guerra. Milan: Bocconi. 1924. Pp. 34.

MICHELS (R.). Lavoro e razza. Milan: Villardi.

PANTALEONI (MAFFEO). Erotemi di Economia (Scritti di Economia). Vol. I. Bari: Laterza. 1925. Pp. 382.

RICCIO (MARIA L.). L'evoluzione della politica annonaria a Napoli del 1503 al 1806. Napoli: Sangrovanni.

SCADUTO (G.). I debiti pecuniari e il deprezzamento monetario. Milan: Villardi.

STRINGHER (J. B.). In memoria di F. Lampertico. Roma.

UGOLINI (G.). Il petrolio o uvi. Roma.

VIRGILII (PROF. FILIPPO). Il problema della popolazione. Milan: Villardi. 1924. Pp. 600.

Swedish.

BRISMAN (S.). Sveriges affärsbanker. Grundläggningstiden. (Sweden's commercial banks. The period of foundation.) Stockholm: Svenska Bankföreningen. 1924. Pp. 248.

[An account of the development of Swedish commercial banks up to 1860. During the eighteenth century the banks of Sweden were more fully developed than those of any other country except Great Britain.]

HECKSCHER (ELI F.). Tullfrågan (The tariff question.) Stockholm: Bonnier. 1924. Pp. 85.

[The author, who is a member of the Tariff Commission, defends the majority report and criticises the minority report.]

HÖIJER (E.). Sveriges jordbruk (Swedish agriculture.) Stockholm: Kooperativa Förbundets. 1924. Pp. 170.

[A picture of Swedish agriculture, its development and present position.]

OHLIN (B.). Handelns teori. (Theory of trade.) Stockholm: Nordiska. 1924. Pp. 169.

[An attempt to state the fundamental principles of trade, domestic as well as foreign, on the basis of the modern theory of equilibrium instead of on the classical labour theory of value. The qualifications to the purchasing power parity theory are, in the opinion of the author, the direct outcome of an investigation of the factors that determine the equilibrium of international trade.]

THÖRNBERG (E. H.). Nationalekonomiens historia, I. (The history of economics.) Stockholm: Tidens förlag. 1924. Pp. 262.

[Deals with the development of economic thought up to the middle of last century.]

ÖRNE (A.). Kooperativa idéer och spörsmål. (Ideas and problems of the Co-operative Movement.) Stockholm: Kooperativa förbundets. 1924. Pp. 208.

[The author is one of the leading personalities of the Swedish Co-operative Movement.]

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